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ABSTRACT

This final report details the results of a federally funded project designed to investigate reading comprehension in students with learning disabilities and their ability to identify themes. The first part of the report discusses reading instruction and students with learning disabilities, and provides an overview of the research. The second section consists of a report on 2 studies that compared identification of theme in narrative by 10 adolescents with learning disabilities and 10 typical students. Research findings in the study indicate that the students with learning disabilities had specific difficulty with theme identification. The third section describes an instructional program designed to teach students with learning disabilities about the concept of theme and how to identify themes in short stories. It also presents an evaluation of the program in two different populations of students with learning disabilities. Results of the evaluation indicate that the Themes Instruction Program was successful in helping students with learning disabilities and typical students to learn about the concept of theme and to identify theme. The fourth section contains a paper on elementary reading instruction and the benefits of phonics programs presented at a symposium of the Orton Dyslexia Society. (Each section contains references.) (CR)

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LEARNING DISABLED READERS' COMPREHENSION OF THEME IN NARRATIVE

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Learning Disabled Readers' Comprehension of Theme in Narrative

Joanna P. Williams
Teachers College, Columbia University

1991

This is the Final Report of a grant awarded by the U.S. Department of Education (Grant No. G008730078) to Teachers College, Columbia University. I served as Principal Investigator and Project Director.

The Report is divided into four sections. The first part consists of a chapter to be included in a forthcoming book edited by Jean Dreher and Wayne Slater. This chapter provides an overview of the research to be reported, along with a discussion of how the work that was conducted under the auspices of this specific grant follows from my previous work (also funded by the U.S. Department of Education).

The second section consists of a report of two studies that compare adolescent learning-disabled and nondisabled students' identification of theme in narrative.

The third section also includes two studies. This section describes an instructional program designed to teach learning-disabled students about the concept of theme and how to identify themes in short stories. It also presents an evaluation of the program in two different populations of learning-disabled students.

The fourth section is a paper on elementary reading instruction presented at a symposium of the Orton Dyslexia Society. It reflects my continuing interest in this aspect of the topic of reading instruction.

This work was done with the assistance of several research assistants, and I appreciate very much the substantial contributions to the project made by all of them: Paul Bartik, Laura A. Brown, Kay Campbell, Lisa Epstein, Carol Rhoder, and Ada K. Silverstein. Professor John S. deCani provided statistical consultation, and I thank him for his generous assistance.

I appreciate the generous cooperation of all the students who participated in the studies as subjects as well as the teachers, administrators, and parents who made their participation possible. All the schools who cooperated in the study were New York City (Manhattan and the Bronx) and Yonkers schools. In line with the policy of the N.Y.C. Board of Education, none of the public schools or school personnel who participated in the project are identified in this Report. In each school there were one or two people with whom we worked very closely. Without them, this research could not have been done, and I am very grateful to them. I would, however, like to acknowledge the generous cooperation of the Winston Preparatory School and Riverdale Country School. Roberta Michaels of Winston and Tina Hayward of Riverdale were extremely helpful.

I was awarded a Teachers College Research Professorship for the Fall term of 1990, which afforded me extra time and resources to devote to my research. I am very grateful to Dean Judith B. Brandenburg, who initiated this program for faculty, for her generous support of my work.

Joanna P. Williams

READING INSTRUCTION AND LEARNING-DISABLED STUDENTS

Joanna P. Williams

Teachers College, Columbia University

Paper presented at The Maryland Conference on Literacy in the 90s, University of Maryland at College Park, March 15, 1991.

This work was supported by grants from the U.S. Department of Education (Office of Special Education Programs).

Yesterday's first speaker, Rebecca Barr, observed that you would be hearing about reading instruction from a variety of perspectives during this conference, and you certainly have. And my perspective is again a bit different; I was trained as an experimental psychologist. I was very pleased to be invited today to talk about some recent studies I've done, as well as some instructional applications suggested by my data.

The field of learning disabilities has had a short and honorable history, although it has been plagued by the problem of definition (Hammill, 1990). I am not going to step into that murky area this morning. In the early seventies, when I first began to work on reading instruction for learning-disabled children, I was very much perplexed by the question of what "learning-disability" really meant. I soon realized that many people had the same question. Only the clinicians, who trusted their intuitions, seemed to be able to tell who was learning-disabled and who wasn't; but they couldn't explain it to anyone else. And many researchers, though it was obvious that there was no clear objective way to identify a child as learning-disabled, happily immersed themselves in investigations designed to identify a whole host of subtypes within the general learning-disability classification.

My own main interest was in reading and in instructional design, and so after considerable reflection, I decided that I could work with children whom someone else had labeled learning-disabled. My rationale was that what I was trying to do was develop materials and techniques for poor readers in general, a more inclusive category. If I was successful, then surely the learning-disabled subset would be helped.

I still hold that point of view, and I think that the evidence is bearing me out. In any event, it has led me stay out of the challenging but frustrating area of trying to identify the learning-disabled child and kept me focused instead on reading and reading instruction.

Before I turn to comprehension, my main topic this morning, I'm going to make a few remarks about beginning reading, because at this point it's our big success story, and I think it provides a good model for comprehension research to emulate.

Beginning Reading

There has of course been some progress in the area of identification. We know that large a proportion of the children who have been identified as learning-disabled have difficulty with reading. So there is a major overlap between these two labels, "learning-disability" and "reading disability" (Gough & Tunmer, 1986). I'm going to focus my discussion on the learning-disabled children whose problem is reading. I'll refer to these children as Generally Reading Disabled, or GRD, because they turn out to be deficient across a wide range of cognitive tasks: language skills of all types, listening comprehension, metacognitive and executive functioning--and often, though not necessarily, in general intelligence as well. It is not surprising to find that they exhibit problems across all stages of reading acquisition from word identification to comprehension, because their cognitive difficulties are reflected in all of the many components of the reading task.

Within this large population, the search for subtypes has, for the most part, not been very profitable. We have given up, fortunately, on visiles vs. audiles, and we're also losing interest in attempts to differentiate according to learning style...there doesn't seem to be much payoff there. However, over the last few years, we have been able to identify a relatively small proportion of children who can be characterized as having a specific reading disability (Stanovich, 1988). Their difficulty seems to be located in their ability to deal with phonological skills. There is substantial support for the notion that phonological sensitivity is causally linked to reading, and, moreover, that phonological processing ability is independent of intelligence and other cognitive tasks. Connie Juel presented some important data relevant to this point yesterday. Thus children could have a specific difficulty in phonological ability that does not impinge on the rest of their cognitive processing. This is truly a specific reading disability. I'll call these children SRDs.

The difference between the GRD and the SRD groups is, presumably, that if we could get the SRD children successfully past the early stages of reading, in which phonological skills are so important, then they would have caught up with nondisabled children who had not demonstrated such phonological problems and they would not need further remediation. GRD children, on the other hand, would need remediation at every step of the way, focused not only on phonological skills but on other aspects of decoding and on higher-level comprehension skills as well.

But what does this mean for instruction? Just because we have identified two groups as distinct does not mean that remediation should be qualitatively different for each group. Both groups need help on phonological skills. The SRDs theoretically need only that; the GRDs need that, plus work on other aspects of reading. One of these groups may need more remediation on phonological skills, perhaps on a more intensive basis or perhaps spread out over a longer time--or they may not. We don't know these details at this point. But in any event, this is a matter of modifying dosages, not changing the prescription. What the work on subtype identification has done for instruction so far is to isolate an important component of the reading task, one that is important for all reading-disabled students.

Indeed, it is difficult to conceive of any subtype research that could lead to a different kind of conclusion. Whatever specific difficulty is uncovered in a particular group of children (whose only problem is that specific difficulty), other children with more general difficulties will also benefit from well-designed instruction in that specific area.

Moreover, there is another group that should be considered--children who don't do very well in their first years of school but who are not considered disabled. The distinction between children who are candidates for special education and those who are simply poor at reading and need remediation has been made since the days of Gates and Dolch (Wixson & Lipson, 1991). What is different today is that with the recent explosion of the field of special education, the number of reading-disabled children has grown tremendously, and the number of remedial readers has become considerably smaller. This change over the years underscores the difficulty inherent in making a reliable identification of disability. It also makes it reasonable to assume that poor readers within mainstream education would also gain from the instruction in phonological skills that seems appropriate for both groups of special education students.

One additional point is worth noting. The remediation that we're talking about is focussed on a component of the reading task itself--isolating and blending phonemes. Typically, when we have proposed theories of why children have trouble reading, we have with great excitement and expansiveness proposed very general remedies. For example, when the field latched on to visual-perceptual deficits, all sorts of training in visual-perceptual skills abounded; but they were found not to improve reading (Bateman, 1979; Williams, 1977). For children with these sorts of difficulties--and we now believe that they are relatively few--the appropriate remediation is to provide instruction on differentiating the actual alphabet letters and letter clusters.

More recently, reading has been conceptualized as a language process (Goodman & Goodman, 1979; Sulzby, 1988). This fits in with our current emphasis on the comprehension process and on instruction in reading comprehension. This focus has led to great enthusiasm for improving language in general and to expectations of seeing improvement in reading comprehension thereby.

But I am not convinced that we're going to get very far by stressing general language development and by making curriculum changes such as introducing lots of story-telling and diary-writing and class discussion. We're going to have to do some serious analytical work and be a good deal more precise about what is needed. We must remember that the big breakthrough in beginning reading was the discovery that we were neglecting one very specific aspect of decoding. With all the task analyses of the reading process that had been done over the years, no one had realized that there was a big problem in phoneme differentiation. Elkonin (1963), a Russian psychologist, drew our attention to this. Now, phonemic awareness is seen as a core element that is a challenge for many children and the only genuine difficulty for a smaller group (Gough & Tunmer, 1986; Liberman & Shankweiler, 1985; Williams, 1986).

In the area of reading comprehension, we're still searching for the counterpart of phonological skills in beginning reading.

Comprehension

Now I'm going to turn to my main topic, comprehension. Comprehension is a general, all-encompassing term, and we have to somehow bring it down to size in order to deal with it. What must be involved in comprehension, as a minimum? I think that the heart of comprehension is the ability to get from a discourse--a text, since we're talking about reading comprehension--its gist or its point. Traditionally, this is called finding the main idea. Pearson and Johnston (1978) have described identifying main ideas as the "essence of reading comprehension." Indeed, without being able to understand the point of a text, one cannot draw appropriate inferences from it; nor can one compare texts without understanding the main points of each. This ability is fundamental to basic comprehension, to effective studying, and to critical thinking. Its importance is reflected in the fact that instruction in how to find main ideas has always been one of the most common elements of the elementary-school reading curriculum.

Children often have difficulty in identifying main ideas of even rather simple texts, in fact (Baumann, 1984; Williams, 1985); and available instructional materials have been evaluated and found wanting (Hare & Milligan, 1984). What is rather interesting about the complaints about the existing methods, however, is that they often deal with something that cannot really be improved. It is true that some basal reading programs as well as other forms of instruction provide examples that are anything but clear, so that even the teacher is hard-pressed to figure out what the main idea is supposed to be. That's just sloppy writing and can be corrected. But people also criticize the teachers' manuals for the explanations that they suggest that the teachers give to the children. These explanations go like this: "To find the main idea, pick out the most important point" or "If you have picked out the most important sentence, you have probably found the main idea." You can use such statements as explanations for the value of finding main ideas--i.e., as an explanation of how good such a strategy is, in reading; but that's just talking about getting main ideas; it is not telling or showing how to find one. The problem is that you can't provide any better alternatives to such statements--try it! There is nothing you can tell a child directly that will tell him what to do. This is true of other comprehension skills besides main idea, and that's the real challenge of comprehension instruction.

Finding Main Ideas in Expository Text

The first set of studies I'll describe deals with finding the main idea in expository text. We focused mainly on children in the fourth to sixth grades, both learning-disabled (GRD) and non-disabled. In a series of studies, we asked children to read short paragraphs, and to select an appropriate title from an array of choices and to write a summary sentence for the paragraph (Williams, 1984; Williams, Taylor & Ganger, 1981; Williams, Taylor & de Cani, 1984). These are typical tasks that you might see in a classroom. All of our paragraphs were written on a very low readability level, so that difficulties with decoding would not confound our findings.

Consider the following paragraph:

> Cowboys had to protect the herd from cattle robbers. Cowboys had to brand cattle to show who owned them. They had to

> ride around the ranch to keep cattle from straying too far. Sometimes cowboys had to separate the cattle that were to be sent to market.

In this paragraph, each sentence instantiates a global topic, and the reader can construct a proposition that at a higher level subsumes the three sentences (van Dijk, 1980, p. 46): "Cowboys had jobs to do."

Various titles and topic sentences represent adequate expressions of the macrostructure of this paragraph. For example, the paragraph could be entitled "Cowboys," or it could be entitled "The Jobs of Cowboys." In van Dijk's terminology (1980), the first title contains the general topic of the paragraph and the second, the specific topic of discourse. Instead of titles, sentences might express either the general topic or the specific topic of discourse: "The paragraph is about cowboys," or "Cowboys had jobs to do." Sometimes our paragraphs included the sentence "Cowboys had jobs to do" as a first, or topic sentence, and sometimes not.

As expected, we found that there was a clear developmental progression in ability across school grades, and that performance was better when readers had merely to select the main idea from an array than when they had to formulate it as a summary sentence; also, children performed better on paragraphs with topic sentences than on those without (although only when the topic sentences were highlighted).

We also worked with children with general reading disability who were 10 and 11 years old (Taylor & Williams, 1983). We compared these children with younger nondisabled children who were matched in terms of IQ and reading level. Across all our experimental tasks, the GRD students did just as well as the nondisabled children. This suggested to us that the two groups were not qualitatively different with respect to the ability to generate macrostructure, and that instruction that focuses on the development of main idea skills should not necessarily be different for GRD children than for ND children--a conclusion that is consonant with the general point of view that instructional development for the reading-disabled should focus on whatever strategies and techniques are effective for the general category of slow readers.

There was, however, one finding that differentiated the two groups. We included what we called parenthetical information in some of the paragraphs, information that was either unrelated to or else only tangentially related to the propositional hierarchy of the text. We did this on the grounds that natural text does not always consist of well-structured paragraphs, and so it is important for readers to be able to disregard anomalous information when reading for gist.

We asked the children to identify the inappropriate sentence in the paragraph. For example, in the cowboy paragraph, that sentence might read, "Cowboys often wear leather jackets and fancy boots." The position of the anomalous sentence was varied across paragraphs, appearing as either the second, third or fourth (last) sentence. Nondisabled children were better able to identify a sentence as anomalous, the closer it was to the end of the paragraph. The GRD children, however, showed no such effect; they were just as willing to accept the anomalous sentence even when it appeared late in the paragraph. This suggested that the GRDs were not as good at building up a representation gradually as the information in each succeeding sentence was processed.

I don't believe that this finding can be explained by saying that GRDs do not monitor their comprehension. That is, in this study, I don't believe that when the students were faced with the task of saying whether a sentence belonged in the paragraph, they did not actually compare what the sentence said with their current representation of the paragraph. After all, such a comparison was explicitly set as the task. Rather, I interpret the results as showing that the GRDs' representation of the paragraph develops less completely or less adequately than that of the nondisabled child; so that when the GRD child does compare sentence and paragraph representation, the outcome of the comparison is not as likely to be on target.

From these findings, it looks as if perhaps GRDs do have specific problems with finding the main idea, though you have to look rather carefully before the difference between GRDs and NDs is seen.

Instruction in Main Idea

We went on, in this main idea work, to develop an instructional sequence, which was designed for GRD children but which as far as I am concerned would be just as useful for any poor reader who needed this sort of remediation (Williams, Taylor, Jarin, & Milligan, 1983). We used the same sort of simple, highly structured paragraphs as we had in our experimental studies and designed a program that emphasized clear definition of main idea and clear description of the task, and explanation of why it was important, something that has not always been done in instruction.

In addition, we incorporated general principles of instruction into the design: (1) the use of well structured examples of the prototypic task, (2) consistent modeling of the strategies being taught, (3) a sequence of tasks and also (4) a sequence of response demands that reflected a progression from easier to more difficult material, (5) the teacher gradually removing herself from the task, and (6) provision for extensive practice and feedback. We also chose to externalize some of the steps in the comprehension process that are, in actuality, implicit, that is, to externalize their thinking. We did this by having the students highlight some of the textual cues, that is, circle the most frequent word or idea, to help figure out the general topic of each activity. Note that there's nothing particularly innovative about this instruction--as Michael Graves said yesterday, it's wise to avoid the trendy.

One aspect of our training that was a bit different was our use of anomalous sentences and the systematic introduction of different types of anomaly, first, sentences totally unrelated to the topic of the paragraph and then sentences that were tangentially related and therefore more of a challenge. Children were taught to identify the deviant sentence, to cross it out (as part of this "externalization" of the thought process), and then to formulate a main idea on the basis of the rest of paragraph.

In evaluating the program, we worked with GRD children about 11 years old, about two grade levels below average reading level for their age. After ten lessons, children were better able to identify anomalous sentences and to write sentences both on (1) materials that had been used in training and (2) similar materials that had not.

One of our major concerns in this sort of work, of course, is to see that our instructional efforts lead to transfer, *i.e.*, that students will learn to work with new material: it is their ability to comprehend in general that we are concerned about. In this case, we can say that there was transfer, albeit only to similarly structured materials. We did not do any posttesting on other types of material. But although the texts used in this study were structurally simple, we are convinced that work with materials such as these is an appropriate beginning step in the development of a sophisticated understanding of main idea and in using this comprehension skill in a variety of more complex materials. What the student is getting is a basic model or a template; we can't tell him directly how to find the main idea, but if he is given a clear, simple pattern that provides him with something that he can use later as a standard for comparison, that is, on the model of pattern recognition.

Finding Themes in Narrative Texts

Now I want to move to some newer work I've been doing on a related topic. I started looking at narrative text and at a task that is somewhat analogous to finding main ideas in expository text, namely, finding themes.

What is a theme? Sometimes a theme is expressed in terms of a concept, such as "friendship" or "courage" (Lehr, 1988). Even kindergartners can recognize and match stories that have similar themes, although the ability to generate themes, *i.e.*, to say, "That story is about friendship," does not appear until a later age.

Another way of defining theme is, in Lukens' words, "the idea that holds the story together, such as a comment about either society, human nature, or the human condition" (Lukens, 1982, p. 101). In children's literature, one common genre is the fable. Here, the theme, or "point," is the didactic message or lesson embodied in the text, and it is often, though not always, explicitly stated in the form of a concluding generalization

(Dorfman & Brewer, 1988). Children have to be older, typically, before they can tackle this task effectively.

While it is intuitively clear that the concepts of main idea and theme overlap, there are also real differences between the two concepts. Themes are more abstract and less tied to the text than are main ideas. "Courage," for example, involves a particular plot pattern but can be described outside of the context of any specific story (Seifert, Dyer & Black, 1986). And "Slow but steady wins the race" or "Respect your elders" might each apply to many different stories. We would usually expect a "successful" reading of expository text to be more closely anchored to the text than the reading of a narrative text would be. It follows from this that, typically, the acceptable range of individual variation in readers' statements of a theme for a given text would be wider than that of a main idea.

There has not been much research that has dealt with the topic of theme. Instead, studies on narrative have addressed more straightforward elements of story structure such as setting, action, and goal. However, the question of "what does a story really mean?" is of interest now, for both theoretical and educational reasons. Let's look at the educational, first.

Right now there is a great deal of interest in literature-based reading curricula. People have become very dissatisfied with existing reading programs (Hansen, 1987). Criticisms of the quality of texts and instructional methods commonly used have led to the rejection, in many quarters, of basal reading programs with their emphasis on abbreviated text selections and the development of isolated skills.

The new literature-based programs emphasize original, unadapted classics and contemporary multicultural literature (Atwell, 1984; Cullinan, 1987). There are other new elements in them: they rely on student-led, instead of teacher-dominated, group discussion and also use a lot of writing activities. At this point, as the development of these curricula proceeds, some of the programs are doing very well. But there is, according to Liebling (1989), a "potential for chaos" in the teaching of reading. She cites two serious problems: the lack of a specific curriculum and the lack of agreement as to which reading abilities should be taught and tested.

Ironically, reading-disabled children are probably likely to lose rather than gain from this reform. These students respond well to highly structured instruction and materials, the development of which runs counter to the philosophy of the new curricular movement. Thus it behooves us to determine ways of successfully incorporating the very worthwhile goals of this new approach into instruction that is suitable for reading-disabled students.

Certain recent theoretical developments both serve to support this new curriculum thrust and to guide research. Two separate but congruent theories have been greatly influential. The first is from psychology: schema theory, which focuses on the way in which a person represents knowledge and the way in which one's representations affect the understanding of new information (Anderson & Pearson, 1984; Rumelhart, 1985). Skilled readers draw simultaneously on several different sources of knowledge as they read, both from information in the text and from their own prior knowledge. Reading is thus interactive. It is also constructive, in that meaning is not inherent in the words on the printed page but, rather, is constructed by the reader on the basis of the interacting sources of information (Rumelhart, 1985).

The second relevant theory is reader-response theory, a theory from the field of literature, that complements the current information-processing orientation of psychology (Cooper, 1985; Rosenblatt, 1938, 1978). The term "reader-response" indicates the importance of the reader's role, culture, reading experience, and preferences. This point of view represents a major revolution in literary theory, a revolution that rejects the idea that the objective text should be the focus of study. Rather, the reader should be the focus, for meaning is shaped by what each reader brings to the reading experience (Rosenblatt, 1938, 1978; Iser, 1974). Since any text contains "gaps" in the information provided, which readers fill in via inference-making, and since each reader is unique in ability, background and interest, each single reading of a text is different; there is no "correct" reading or understanding of a given text.

Given these ideas, it might be argued that it makes no sense to talk about "the" theme or "the" point of a story. But in my opinion, the intellectual attractiveness--and the genuine value--of reader-response theory along with schema theory can lead to dangerous overinterpretation. This may result in some unfortunate educational values, that is, the belief that since on theoretical grounds there is no main idea or theme in the text itself, instruction should allow and nurture the expression of any interpretation of a text, no matter how idiosyncratic. Taking this position to heart (actually unjustified in terms of theory), how would anyone ever communicate?

How, then, in light of these theoretical stances, does one sensibly interpret and evaluate readers' comprehension responses? The literary critic Stanley Fish (1980) has developed the concept of "interpretive community," which emphasizes the notion that a person's perceptions and judgments--and readings--are interactive, are constructive, and are unique to the individual. But, he points out, they are obviously also shaped by the individual's environment. Personal meaning depends on the assumptions shared by the groups of which the individual is a member. The implication is that there is a text meaning on which a group of readers might agree, in addition to the infinite number of personal meanings that can be constructed for any given text. The sophisticated reader is able to derive both personal and consensual meaning from text. In this regard, it may be useful to think of theme as a family of related statements, rather than as a single statement (Golden, 1989). Individual responses may well differ, depending on previous experience, particular needs, and ability, but a successful reading is likely to contain core elements that are common across readers. And of course, complex stories may have multiple themes or theme families.

Much of the discussion of these theoretical issues resolves around a concern for teaching literature for its own sake. But people have also begun to utilize narrative extensively in a wide variety of other applications. In content area classroom learning, they are using biographies of notable figures in history and social studies, as Isabel Beck pointed out yesterday; and in instructional programs teaching reasoning and interpersonal problem-solving, there is much discussion of case histories and problem instances (Shure & Spivack, 1978; Williams & Ellsworth, 1990). In addition, Richard Gardner (1987) has developed a technique of psychotherapy that involves an exchange of stories by child and therapist. The assumption is that it is easier to impart social knowledge when it is presented in the form of a concrete example, because the example immediately illustrates how that knowledge is related to real-life situations.

Reading-disabled children would seem to be prime candidates for interventions based on this sort of approach, given the problems that they have in the social arena as well as their academic difficulties. However, practically no work has been done on how reading-disabled students abstract and generalize from stories in such a way that the understandings gained can be brought to bear effectively on their own life experiences.

A Comparison of Disabled and Nondisabled Readers

In the study that I want to describe this morning (Williams, in preparation), we worked with children from private schools in New York City whose students came from similar, upper-middle-class backgrounds. The reading-disabled students attended an ungraded school specifically for students with learning disabilities. All had been classified by the school as reading-disabled, had test scores that fell within the normal range of intelligence, and had reading levels at least two years below what was expected for their age. The mean age of these students was about 13 and 1/2. Their grade-equivalent reading scores on the Comprehension subtest of the Gates-MacGinitie Reading Test ranged from 3-8 to 8-8--on the average, about the middle of the sixth grade.

A group of nondisabled students, drawn from the fourth, fifth, and sixth grades of a regular private school, was matched with the GRD group on reading level. Their mean age was 10 and 1/2. Another group of nondisabled stuents was drawn from the seventh and eighth grades. Their mean age (13-1/2) was matched with that of the GRD group. Their reading comprehension was at the 12th grade level.

We used a story taken from a collection by Jessamyn West, Cress Delahanty (1953). (West was the author of another story, Reverdy, that had been used by Golden and Guthrie, 1986, and also by James Squire, 1964, in studies of nondisabled ninth graders.) The study portrayed the adolescent identity crisis by describing a teenage girl's attempts to be popular with her school mates. The girl goes through a series of antics, trying to show how witty and zany she is, but she is really acting very unlike her real self. She ends up losing what she really wanted, the editorship of the high-school yearbook, because her friends can't take her seriously. They put her in charge of the joke page instead.

We met with students individually. The students listened to the story on tape, divided into three sections. They were asked to summarize each section and then make a prediction about what would happen in the next section. At the end of the story, we asked them to tell us the theme of the story and the basis on which they made their judgment. These focused questions were incorporated into a natural exchange between student and interviewer that lasted approximately twenty minutes. We taped and transcribed these discussions.

Design: First of all, let's look at the design. It includes a developmental comparison, i.e., the young nondisabled students (YND) and the older ones (ND). We expect that the latter group will perform better.

Next, we can compare the reading-disabled subjects with their age-matched nondisabled peers (ND); this is the usual way to compare GRDs and NDs, and we expect that the GRDs will not perform as well: our tasks, after all, are clearly associated with the tests that are used to define reading disability.

The interesting comparison is between the reading-disabled students and the nondisabled students who are matched on reading level (YND). If the disabled students perform more poorly, then one could argue that one cause of their low reading level may be their lack of ability on the experimental tasks. That is, students who cannot perform well on these measures may, because of this difficulty, become disabled readers: the competencies that underlie performance on the experimental tasks are needed in the overall task of reading comprehension; those skills are weak; and this weakness has interfered with their acquisition of proficiency in reading comprehension (compared with children who are nondisabled and are acquiring proficiency at a normal rate). That is, if our reading-disabled students in this study turn out not to read as well as the NDs who are the same age, one reason might be because of their difficulties with the particular competencies we're looking at.

Measures and findings: Our basic experimental tasks were quite straightforward, tasks that are similar to those seen on reading tests and to questions that teachers ask in classroom discussion: (a) summarize the story in your own words; (b) predict what will happen next; and (c) identify the theme. Remember that the students listened to the story and were interviewed. We're looking at comprehension here, and we did not want whatever difficulties the children might have with low-level reading skills to confound our determining how well they understood the story. Our tasks require higher-order comprehension at a level that is presumably similar, regardless of whether the presentation mode is oral or written. Thus we would expect that the GRD group and the YND group, matched on reading comprehension, would perform similarly on these measures.

And they did. On all of the basic measures--summaries, predictions, and theme statements, the older ND group was best, and the reading-disabled students were comparable to the reading level-matched younger nondisabled students. Because the latter two groups did not differ on these measures, it can be argued that whatever the reasons for the GRDs' low overall general reading comprehension level, their low level is not due to difficulties they have with respect to the high-level comprehension tasks used in this study.

But we looked further. We did a very close analysis of the transcriptions of the interviews, to see if we could find some more subtle indications of how well the groups had comprehended the story. The protocols were quite rich, and we looked at several categories of potential difference. I'm going to talk about only a couple of points today.

First, we wondered whether we had chosen too stringent a criterion for judging that a student's identification of the theme was acceptable. There is evidence in the literature that children have difficulty in articulating what they actually do comprehend; that is, there is a production deficiency. So we searched through the entire protocol for additional information as to whether students had any notion at all of the theme. Perhaps there was some incipient awareness that they were simply not able to formulate and articulate sufficiently well in response to a direct question.

Next, we also looked for indications of just what information the students were using to build their representations of the story. Were they possibly incorporating information into their representations that derived not from the text but from other sources, including their personal experiences? And might this modify the representation sufficiently to deflect them from comprehending the consensual theme? Let me explain why we asked this question.

A relevant finding from another study: In a previous study, we asked students to retell short problems that they had read and to predict the character's likely solutions (Williams, 1990; in press). We did a similar sort of structured interview here. There were four groups of students, two LD and two ND, which were ranked in terms of reading comprehension from lowest to highest as follows: LD-ND-LD-ND. Whereas most of our measures (quality of retellings, number of errors) reflected the group's level of reading comprehension and not its learning-disability status, the number of idiosyncratic importations that were made showed a different pattern: they did not reflect reading level but, rather, were much more frequent in the LD groups--even when an LD group with a higher reading level was compared to an ND group with a lower reading level. And it was this measure of importations of irrelevant implausible information that predicted the groups' ability to provide solutions to the problems. We hypothesized that the LDs' representation was different, less adequate in some way, and that they had--necessarily--based their prediction of what the character would do on their faulty representation.

So we wondered whether, in our study on theme, reading-disabled students would also show the same tendency to exhibit importations.

Further findings: These additional measures showed quite different results from the measures based on our direct questions. On every one of them, the reading-disabled students performed less well than the nondisabled students matched on reading level. In our first comparison, we looked at the protocols for indications that the students had picked up some understanding of the theme, even if only at a very rudimentary level. It took some close reading to do this! Whereas on the actual theme statements the two groups performed equally poorly, the YNDs showed greater evidence that they had some incipient awareness of the theme. This finding suggests that they had in fact developed a more adequate representation of what the story was about.

Now for the hypothesis from the problem-solving study. We found that the GRD students were indeed more likely to bring into their discussion of the story idiosyncratic importations, i.e., information based on personal feelings or experiences rather than derived from the text. For example, one GRD student predicted that Cress would read the list of traits that she had written out loud to her class and then everyone would like her, "because I used to be like that--when I was a little kid--too shy." Another LD student said, "I think that they are going to try to stop her by sending her to another school. They will teach her a good lesson or a better way to behave--stop showing off."

As students develop effective comprehension skills, they must learn not only to bring in information from their world knowledge, but also how to evaluate and edit it. Our data suggest that GRDs are relatively poor in this ability. It seems quite reasonable to suggest that this difficulty may lead to a representation of the text, which, even if only subtly modified, can change one's focus and prevent one from getting the (consensual) "point."

We also found something we hadn't expected. The reading-disabled students made more pronunciation errors than either of the other groups. Many, but not all, of these errors occurred on proper nouns. The girl's name in the story was Cress; some of the GRD students called her Chess or Chris. The called her parents, Mr. and Mrs. Delahanty, Daly or Delly. The number of actual references that were made to the characters did not vary across the groups. Rather, the NDs and the YNDs seemed to be able either to master the pronunciation and so not make errors, or else to finesse the problem by substituting pronouns or phrases (like "the mother"). This indicates a flexibility of expression as well as an awareness of what is important and what is not, so that the relatively trivial matter of the characters' names could be dealt with and the central focus on the comprehension of the story could be maintained.

This finding is perhaps not very surprising; we are aware of the importance of basic skills. We talk about the "bottleneck" that results from a lack of these low-level skills and the subsequent slower advancement in reading proficiency because of this bottleneck (Perfetti, 1985). This problem is not limited to written language; it also appears in oral language.

It seems reasonable to conclude that on both counts, the important issue here concerns getting and maintaining a focus on the important information. If the student was challenged by the difficulty of pronouncing a character's name, the attention that had to be allocated to that task would not be available for the task of determining what the story was about. And if a student brought in extraneous information into his or her story representation, that representation would likely be a little off target, and comprehension would suffer.

This reminds me of one of Peter Winograd's findings. Winograd found that poor readers' summaries of expository text were more idiosyncratic, and more off the "point," as judged by proficient adult readers, than were good readers' summaries; the poor readers selected especially colorful and salient information from the texts to include in their summaries, even though that information was not high in the propositional hierarchy. Ruth Garner made similar observations (Garner, Belcher, Winfield, & Smith, 1985); she used the nice phrase "seductive details." Consider how much more seductive are pieces of information that the student himself brings to bear on the text.

Comparison of the Main Idea Studies and the Theme Study

The two studies I've described are very different. The main idea work used expository text, a text that was contrived according to very clearly specified criteria for the experiment, it required reading, and the task was an artificial laboratory-like (or at least test-like) task. The theme study used narrative text, and a real story not developed for experimental purposes; no reading was required, and the data were collected in a situation involving more natural interchange. Yet both studies showed the same thing.

Difficulty in Determining Appropriate Text Boundaries

Reading-disabled students seem to have particular difficulty in focusing on the central point, and the data suggest that at least part of the reason for this difficulty is an inability to edit out associations that are irrelevant and off-target. Presumably this difficulty is part of what is holding them back from comprehending at the level at which their age-mates are comprehending (whether "reading comprehension" or "listening comprehension").

irrelevant and off-target. Presumably this difficulty is part of what is holding them back from comprehending at the level at which their age-mates are comprehending (whether "reading comprehension" or "listening comprehension").

Now this is only a hypothesis. Is this truly a specific difficulty of some disabled children such that we could identify an SCD (Specific Comprehension Disability) group comparable to the SRD group that is deficient specifically in phonological skills? It may turn out simply that this is one component of the task of getting the point (call it main idea, theme, or whatever) that all poor readers, whether they are labeled general reading disabled, remedial readers, or whatever, find difficult.

I think it's an interesting question and worth more research. But let's consider it for a moment from the point of view of remediation. Getting the point is an important skill--perhaps the most important skill--in comprehension. We know that it's difficult for many children. We have evidence that one thing that contributes to poor performance is the importation of idiosyncratic content into a text representation. It seems to me that it is worth addressing instructional attention to the matter, whether or not it turns out that it is truly a specific disability.

Instruction: Can the difficulty be remediated? I'd like to propose some implications for instruction that I think follow from our findings. Two are rather general. First, there should be opportunity for children to work, even on a strictly oral level, on low-level basic skills. The research evidence on this point goes far beyond what I've presented here, and is thoroughly convincing on that point.

Second, we should help students formulate and articulate ideas (to get instances of "incipient awareness" expressed effectively). This is a central challenge in language arts instruction. General strategies used in teaching writing should help here.

The third implication for instruction is more central to my own focus. We should try to help children develop story representations that demarcate story information as distinct from idiosyncratic information. That is, we should attempt to develop an awareness of the boundaries of a text. This is essential for effective comprehension and is the basis for even the most elementary critical reading. Given today's strong theoretical orientation focused on the constructive nature of reading, this is an area we are likely to neglect. Obviously, individuals who come up with atypical interpretations of a text are not "wrong," and teachers must be sensitive to the importance of encouraging a child's imagination and creativity, but they also must not let students get carried away...or get carried away themselves.

This is easier said then done, for we must beware of trying to modify too much and thereby eliminate or denigrate a student's own personal concerns. It is the particular issues that are salient to individual readers that determine their own readings of a text and the ultimate value of their reading experience. It is crucial that instruction honor individuality and, indeed, foster it.

We are now in process of evaluating an instructional sequence that teaches what we call a "theme scheme." This is a series of questions that help students get the important information from a story--first, to determine the basic story grammar components, i.e., to understand the story on the plot level; to identify the theme of the story; to generalize the theme, from a statement, for example, like "King Midas should not have been greedy" to "We should not be greedy;" and to classify and to generate (tell) stories that involve similar themes.

We are working with GRD and ND children in the sixth grade in a mainstream class situation. Results look promising: both the ND and the GRD children are developing the ability to understand the nature of a theme, to identify and formulate themes for specific stories, and to generalize them to "real-life."

We are trying to address the problems that arise from incorporating extraneous content into representations--the boundaries problem--without ignoring the importance of fostering the child's own ideas and concerns.

Summary

In summary, I'm enthusiastic about the new reforms in reading comprehension instruction, and I welcome the emphasis on literature. But I would hate to see the new approach used badly and children short-changed. And since it may in fact be a special challenge for reading-disabled children, perhaps we should be extra-vigilant about the effects of the new curriculum on them.

Our task is to develop instruction that is appropriate for those children who are having difficulties in reading. In my opinion, it matters less whether they are reading-disabled, specific-reading-disabled, learning-disabled, or simply remedial readers than it does to know what to teach and how to teach it. We must identify the particular aspects of the reading task that might be troublesome and develop effective ways of overcoming those difficulties. Such instruction is likely to be effective whatever label we give the child. So far, the evidence seems to suggest that the differences in optimal instruction for disabled learners and for nondisabled learners are quantitative, not qualitative. Whatever the level of their reading aptitude, all children can use a bit of instruction. Some children need considerably more than a bit. Many of us are convinced that this is the way to look at beginning reading instruction, and I think that it will turn out to be the way to look at reading comprehension instruction as well.

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COMPREHENSION OF LEARNING DISABLED AND NONDISABLED STUDENTS: IDENTIFICATION OF NARRATIVE THEMES AND IDIOSYNCRATIC TEXT REPRESENTATIONS*

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ABSTRACT

In an interview organized around the comprehension of an authentic story and the identification of story theme, adolescent learning-disabled students performed below the level of same-age nondisabled students and at the same level as younger nondisabled students matched on standardized reading comprehension score. However, on one sensitive measure of theme identification (incipient awareness of theme), the learning-disabled students scored below the younger students as well. The learning-disabled students also made more idiosyncratic importations during their summarizing and discussing the story, and such importations were associated with poorer theme identification. The findings suggest that learning-disabled students have specific difficulty with "getting the point" and that this difficulty might be due to their having built up less effective text representations because of inappropriate use of background knowledge or intrusion of personal points of view.

Introduction

There are two general purposes to this study: first, to examine the ability of adolescents at two age levels to identify a theme in authentic, "natural" stories and to compare learning-disabled and nondisabled students on this ability; and second, to test the hypothesis that students whose representation of a story incorporates importations of idiosyncratic responses will be less likely to identify an appropriate theme for a story, and to compare learning-disabled and nondisabled adolescents on this issue.

The recent flood of research on comprehension has produced more studies of narrative than of any other genre (Graesser, Golding, & Long, 1991). This great interest in narrative reflects our appreciation of its importance in cognitive development: directly-experienced events and sequences of events, which are depicted in narrative discourse, constitute a child's primary knowledge base (Nelson & Gruendel, 1979). As the events are experienced and represented, they are incorporated into a general, ever-developing schema that guides the comprehension of subsequently encountered events.

A similar process occurs when listening to or reading stories: a schema is built up gradually on the basis of many individual narratives, and that schema is then available to guide comprehension of subsequent stories-- or of real life events. Knowledge grows as both directly-experienced and vicariously-experienced events occur (Sarbin, 1986).

Indeed, the power of narrative as a mode of socialization has long been acknowledged (Bruner, 1986), and people are now using it extensively in a wide variety of applications, including content area classroom learning (e.g., biographies of notable figures in history and social studies); inter-personal problem-solving (discussion of case histories and problem instances, Shure & Spivack, 1978; Williams & Ellsworth, 1990); moral education (fables and anecdotes, Tappan & Brown, 1989; Vitz, 1990); and child psychotherapy (exchange of stories by child and therapist, Gardner, 1987). Narrative discourse is relatively easy to comprehend and to remember (e.g., Freedle & Hale, 1979; Spiro & Taylor, 1987), and it is generally assumed that concrete examples facilitate learning and comprehension, because examples immediately illustrate relevance to real life situations.

When we talk about relevance to real life, we are typically referring to some relationship beyond that of similarity at the specific plot level. That is, the listener/reader must go beyond the identification and comprehension of the specific story events and the relationships among them to identify the gist, or point, of a discourse or text. None of the several well-developed theories of narrative comprehension--story grammar (Mandler & Johnson, 1977; Rumelhart, 1980; Stein & Glenn, 1979; Thorndyke, 1977), causal network theory (Trabasso, Secco, & vandenBroek, 1983), and conceptual graph structure theory (Graesser & Clark, 1985)--address the question of gist (Graesser, Golding, & Long, 1991).

The Concept of Theme. Even beyond the confines of comprehensive theory development, there has been little attention to this matter. Most of the few recent papers that do focus on gist use the term "theme," a term that is used in a variety of ways. Lehr (1988) defined theme in terms of a concept such as "friendship." In a more elaborated formulation, Dyer (1983; Lehnert, Dyer, Johnson, Yang, & Harley, 1983) introduced the notion of thematic affect unit (TAU), defined as a plot pattern that is disembodied from its context. "Retaliation" is a TAU because it involves a particular plot pattern, but is describable outside the context of any particular story.

These TAUs incorporate both goal elements and affective elements of the narrative and can also be expressed as adages, e.g., "Every cloud has a silver lining" (Graesser, Golding, & Long, 1991). Expressed this way, Dyer's formulation is similar to that of Lukens (1982), who defined theme as "the idea that holds the story together, such as a comment about either society, human nature, or the human condition" (p. 101). The common feature of these definitions is that a theme is an abstraction.*

A caveat is necessary here. Current constructivist theories, e.g., schema theory (Rumelhart, 1980) and reader-response theory (Rosenblatt, 1978), emphasize the strong dependence of meaning on the reader. Since any text contains gaps in the information provided, which readers fill in via inference-making, and since each reader is unique in ability, background, and interest, any single reading of a text is different; there is no "correct" reading or understanding of a given text. But constructivists (e.g., Iser, 1974) also point out that readings can be more or less complete with respect both to encompassing the information presented explicitly and to making use of the gaps that allow the construction of personal meaning. Fish's (1980) concept of "interpretive community" reflects the idea that a person's perceptions and judgments--and readings--depend on the assumptions shared by the groups of which he is a member. Thus, there is a text meaning on which a group of readers might agree, in addition to the infinite number of personal meanings that can be constructed for any given text. The sophisticated reader is able to derive both personal and consensual meaning from text. (See also Bleich, 1978.)

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*Other terminology, such as "point" [Wilensky, 1983], has also been used to label essentially the same concept. But "point" has also been used as a more general term, applicable to other text genres and to conversation as well as to narrative (Schank, Collins, Davis, Lytinen, & Reiser, 1982). Thus, even though "theme" may bring with it a heavy set of literary connotations, it seems preferable in the present context.

"The" theme or "a" theme of a story as conceptualized and assessed in the present study reflects consensual meaning. This is not to deny the existence and the importance of personal meaning. But the educational, and some of the therapeutic, applications involving the use of narrative that were described above would be worth very little without the consensual meaning that they are assumed to provide.

Empirical Work: There is not much empirical work on this topic. Seifert, Dyer, and Black (1986), using the TAU model described above, showed that adults use thematic knowledge to understand short narratives: when asked to sort stories, they were more likely to group the stories by theme (e.g., retaliation) than by the specific context in which the story occurred. Lehr (1988) asked children to identify stories with similar themes (like "friendship") and also to state themes. Ability to match stories that had similar themes was seen even in kindergartners. However, ability to generate themes did not appear until later and was correlated with amount of exposure to literature. Many children gave responses that were overly concrete or overly vague. Other studies (Cullinan, Harwood, & Galda, 1983; Golden, 1985) have also indicated that even elementary school children can do some interpretation of stories, but most research indicates that generalization and interpretation improve substantially with age (e.g., Purves, 1981; Svensson, 1985). The results of Applebee's extensive developmental study (1978) suggest that it is in the adolescent years that individuals first display a substantial amount of generalizing about a text and reflecting on its theme.

In one of the few studies without a strictly developmental focus, Dorfman and Brewer (1988) addressed one specific type of story, the fable, for which they defined theme (they used the term "point") as the didactic message or lesson embodied in the text that the reader believes the author intends to convey. They developed a schema for fables and showed that adults have difficulty deriving points from fables that violate that schema. In another study, Dorfman (1989) found that children's ability to make appropriate judgments about the points of fables reflects the extent to which they have acquired components of the adult model.

Learning-disabled Students. Learning-disabled students demonstrate substantial problems in reading comprehension that cannot be attributed to difficulties in the rudiments of reading; they are less adept in their use of language comprehension strategies in general, whether written or spoken (Stanovich, 1986; Williams, 1987). Most studies of the narrative comprehension of this population have focused on comparisons regarding specific story events and relationships among them. For example, it has been found that learning-disabled students perform less well than their nondisabled peers on recall of story information (Wong, 1979), components of a story schema (Worden, Malmgren, & Gabourie, 1982), and important idea units (Smiley, Oakley, Worthen, Campione, & Brown, 1977).

The dearth of studies on the ability of learning-disabled children to identify theme in narrative probably reflects the relative difficulty of the task. In fact, the literature suggests that getting themes is not always a simple task, even for nondisabled students. Taylor (1986) compared fourth and sixth graders' ability to write summaries of both expository and narrative prose and concluded that the inability to find and state the main idea (her terminology) in both rhetorical modes was the chief deficiency in their performance. Only one-quarter of the students could find and explain the moral in a simple narrative. A recent paper by Rieff and Gerber (1990) underscores the importance of this difficulty when considering learning-disabled students: "Mounting evidence," they say, "suggests that students with learning disabilities do not see central ideas in many different contexts" (p. 261). Why might this be so?

Building a Representation. As one builds up a representation of a text, one brings in information from other sources to fill in what is not textually explicit. Narrative discourse invites a particularly large number of knowledge-based inferences (Graesser, Golding, & Long, 1991). These inferences make an essential contribution to comprehension (Anderson & Pearson, 1984). Indeed, comprehension instruction focusses on the importance of such knowledge-based inference-making (Raphael & Pearson, 1985), and the use of personal experience is emphasized in literature courses.

However, background knowledge may sometimes be inaccurate or incomplete, and in such cases it may interfere with comprehension (Spiro, 1977; Alvermann, Smith, & Readance, 1985; Schneider & Pressley, 1989). Thus, a reader must learn not only how to integrate information from diverse sources, but also how to inhibit some of the background knowledge that is triggered automatically during reading. This involves the metacognitive ability to evaluate and modify one's inferences and conclusions, which depends partially on the ability to identify the source of information responsible for one's understanding.

Studies of the difficulties that may arise from background knowledge usually deal with factual or descriptive text (e.g., problems in detecting textual inconsistencies: Garner, 1980; Vosniadou, Pearson, & Rogers, 1988). The literature on failure to understand scientific concepts because of prior misconceptions (McCloskey, 1983) also fits within this rubric. But the concept of background knowledge also involves preferences and values and other idiosyncratic responses that might interfere (Pace, Marshall, Horowitz, Lipson, & Lucido, 1989).

Some discourse genres, such as the problem, have a relatively strong tendency to involve a reader's values and other similar aspects of knowledge. Williams (1991a; 1991b) asked adolescents to read short problems and predict what the main character would do to solve the problem. Some of the students, in retelling the problem, brought in extraneous material that reflected their own wishes, point of view, etc. Sometimes these importations modified the problem representation inappropriately. Williams found that this pattern of problem-representation led to poor predictions. Moreover, learning-disabled students, compared with nondisabled students, showed a greater tendency to import information from sources other than the text into their mental representations of the problems, and they also showed less effective predicting/problem-solving.

The same threat to effective representation is likely to occur when listening to a story: one's own interests and values are triggered automatically; and if the irrelevant or inappropriate information is not edited out but becomes part of the text representation, the student's grasp of the gist of the text and his/her ability to identify the theme will be lessened.

Design. In this study, three groups of students are compared: learning-disabled students (LD), nondisabled students of the same age (ND); and (younger) nondisabled students at the same reading level (YND). The design is thus a combination of developmental comparison and, with respect to the LD group, both an age-level and a reading-level match design.

Predictions for two of the comparisons are clear-cut. The ND group will perform at higher levels than will the YND group, indicating that the skills measured are indeed "developmental," i.e., they improve, in normal populations, with increasing age/experience/instruction (Graesser, Golding, & Long, 1991). Also, the LD group will perform less well than the ND group. The reading achievement levels of the two groups are different, and the skills measured in this study generally are associated with reading and listening comprehension levels (Wixson & Lipson, 1991).

Following from this, we would expect the LDs and YNDs to perform similarly, because their general reading comprehension levels are comparable. However, if, as expected from the Williams (1991a) study, LDs have a greater tendency to incorporate personal, irrelevant background knowledge into their representations, this may lead to poorer identification of the theme relative to that of the YNDs.

Replication. A second study was conducted as a replication of Study 1, in order to increase the generality of the findings. To this end, the same method was used with another story from the same collection. Because the amount of data collected on several of the response measures was small, statistical analyses were done on both studies combined.

METHOD: Study 1

Subjects

Subjects were drawn from three private schools in a large, metropolitan area whose student populations shared similar upper-middle-class, relatively high socioeconomic backgrounds. Yearly tuition at these schools ranges from $9,000 to $14,000. One was a private junior high/high school for students with learning problems, in which classes were ungraded and were composed of students with reading and other kinds of disabilities. The other two schools employed a traditional graded system, with students placed in age-appropriate classrooms.

Ten learning-disabled students who attended the school for students with learning disabilities comprised our LD group. (See Table 1.) All ten students had been formally identified by the school as learning disabled. *A priori* criteria for classification as learning-disabled, established by the investigator, were used to screen this school-identified population. These criteria included (a) a full-scale IQ of 85 or higher; (b) reading achievement at least 1.5 grade levels below expectation; and (c) no gross behavioral problems as assessed by psychological evaluations by school psychologists. These judgments were based on the results of tests administered by the school within six months of the study and represent identification criteria similar to those used in other recent studies (e.g., Torgesen, Rashotte, & Greenstein, 1988).

There were 6 males and 4 females in the group. The mean age of the students was 13.8 years (SD = .8). The mean Extended Scale Score on the Comprehension subtest of the Gates-MacGinitie Reading Test was 541.8 (SD = 37.7), grade equivalent score = 6-8. (The Extended Scale Score was used to equate groups; because of the age variation within the LD group as well as among the three groups, different test forms had been administered.)

A group of 10 nondisabled students (8 male, 2 female) was drawn from the seventh and eighth grades of a second school such that its mean age (M = 13.7, SD = .5) was matched with that of the LD group. The mean Extended Scale Score on the Comprehension subtest of the Gates-MacGinitie Reading Test was 641.3 (SD = 28.7), grade equivalent score = 12-1.

Another group of 10 nondisabled students (6 male, 4 female), drawn from the fourth, fifth, and sixth grades of a similar school, was matched with the LD group on reading level. The mean Extended Scale Score on the Comprehension subtest of the Gates-MacGinitie Reading Test was 540.1 (SD = 24.4), grade equivalent score = 6-8. The mean age of this group was 10.4 years (SD = .6).

Materials

Criteria for selecting the story included suitable length, structure, level of language, sophistication, interest, and presence of an easily discernible theme. The selection was made by consensus of the five researchers engaged in this and related studies.

The story was taken from a collection by Jessamyn West, Cress Delahanty (1953). (West was the author of another story, Reverdy, that had been used by Golden and Guthrie (1986) and also by Squire (1964) in studies of nondisabled ninth graders.) The story concerned a teenage girl's attempt to become popular with her school mates by engaging in amusing, exhibitionistic antics that were very different from her normally serious behavior. Cress ends up losing what she really was aiming for, the editorship of the school yearbook; her classmates elect her joke editor.

The story was condensed from approximately 3,500 words to 1,350 words by removing the parts that could be deleted without destroying the story line. Next, the story was divided into three sections. This was done in order to define points at which we would interrupt the story presentation and ask for predictions about what would happen next. Pilot testing indicated that when the text was divided into three sections approximately equal in length, predictions about an insignificant character mentioned in the last line of Section 2 were more likely to be offered. Consequently, Section 2 was lengthened so that it terminated at a point representative of the section as a whole. Section 3 was therefore slightly shorter than either of the other two sections. The first, second, and third sections were approximately 500, 500, and 350 words in length, respectively. The story was taped, to ensure that all students heard the same version of the written text.

Procedure

Each student was seen individually by one of three research assistants, each of whom interviewed approximately the same number of students from each experimental group.

The interviewer explained the purpose of the study and the procedures for assuring confidentiality. It was explained that protocols would not be graded for school purposes or evaluated individually. The following instructions were given: "I am going to ask you to read a story. It is divided into three parts. I am also going to play the same story on tape. Please read along with the taped story. When the first part is finished, I will ask you some questions." The same procedure was followed for each of the other two sections. Students' answers were taped and later transcribed.

Students were asked to summarize Section 1 and then make a prediction about what would happen in Section 2; summarize Section 2 and then make a prediction about Section 3; and summarize Section 3 and then state the theme of the story and the basis on which they made their judgment.

The interviews were structured, but there was leeway allowed for a natural exchange between student and interviewer. At the end of the interview, the experimenters in most cases queried further, in order to make sure they had understood the students' responses, to pinpoint possible sources of difficulty, and to provide descriptive evidence for hypotheses about differences among groups.

Scoring

The protocols were transcribed verbatim. Raters blind to the experimental condition of subjects scored the transcripts.

Summaries. Six doctoral students served as "expert readers." They were asked to to help develop the scoring template for the study. They summarized each section of the story, made predictions, and provided a theme. To do this task, they read the story and the interview questions and wrote their answers.

These summaries were parsed into idea units (Johnson, 1970). Those idea units that were included by four of the expert readers became part of the scoring template. This procedure yielded 12 important idea units all together (5, 3, and 4 in Sections 1, 2, and 3, respectively).

Each of the 30 subjects' summaries was then scored in terms of how many of these 12 idea units were included. Reliability of this scoring was assessed by having another scorer review a random sample of 6 of the 30 transcripts, selected from across the 3 groups, and determining the proportion of idea units on which the two scorers agreed. (This was the way in which all of the reliabilities reported in this paper were evaluated.) On the basis of 96 judgments (16 idea units x 6 protocols), interrater reliability of scoring was .86.

Predictions. The predictions were evaluated in terms of plausibility and appropriateness and were scored either acceptable or not acceptable. The predictions made by the six expert readers were not used as the basis for the evaluation, because it was found that predictions could be very heterogeneous and still be plausible. The predictions that were scored as unacceptable were ones that were directly contradicted by information in the story up to that point or that were judged implausible on the basis of what had come before.

A second scorer evaluated the responses to Prediction Point 1 of 10 of the 30 subjects, chosen from across the 3 groups, and also 10 (different) subjects' responses to Prediction Point 2. Nineteen of the 20 judgments made by both raters agreed, giving a reliability of .95.

Theme Statements. This was the first of two measures of theme identification. With allowance for the variety of ways in which a theme can be expressed, there was complete consensus among the expert readers as to an appropriate theme for the story. All 6 proposed themes that centered around Cress's identity crisis. For example, one said, "Adolescents must explore for themselves who they are. For many, it is a painful, difficult realization." Another said, "Growing pains, growing up. Finding youself, finding identity." Subjects' theme statements were judged appropriate if they were comparable to that theme represented in the themes provided by the expert readers. Allowance was made for the sometimes awkward expression of the theme. To determine reliability, a second scorer evaluated the theme statements of 10 subjects selected at random. Interrater agreement was .90.

One potential concern about using adults as a standard for scoring of this kind is that an adult might have a different notion of what is salient in a story from that of a child, so that the themes that adults and children would offer for a story would differ. However, the 10 ND students gave the same theme as did the expert readers. Moreover, although the number of students in the YND group who offered that theme was very small (only 1), there did not appear to be any other specific theme offered frequently by these students. Rather, students in this group, and in the LD group, responded with a variety of themes that focused on popularity, responsible behavior, school elections and the like. Thus there was no consistent pattern in the data that would suggest that 10-year-olds were more likely to offer for this story a specific theme different from the one offered by 14-year-olds and adults.

Theme Awareness. This was the second measure used to assess students' ability to identify the theme. The protocols as a whole were very rich, and in order to arrive at a score that was based on more of the data than the theme statement alone, we reviewed each student's entire protocol. This provided a more liberal scoring of theme identification, which we called Theme Awareness. A second scorer evaluated the protocols of 10 subjects selected at random; interrater reliability was .90.

Theme Abstractness. One of the hallmarks of a theme is its abstractness or generality. That is, a theme is typically stated in terms that go beyond the immediate plot and is expressed in a form that applies beyond the specific characters in the story. (In a sense, it can be argued that someone who provides a general theme statement, whether appropriate or inappropriate, has some knowledge about the nature of a theme.) An evaluation was made of whether each of the 30 theme statements was of a general, beyond-the-plot nature or whether it was concrete, i.e., tied to the characters and plot of the story. A judgment that a theme statement was abstract (and thus acceptable) corresponded to the highest level on Lehr's (1988) scale for evaluating thematic statements. Interrater reliability on this measure was .95.

Idiosyncratic Responses. The entire protocol was also examined for idiosyncratic responses. If and when information was included that was based on personal feelings or experiences rather than information from the text, it was scored as an idiosyncratic importation. Interrater reliability on this measure was .90.

RESULTS: Study 1

This section includes descriptive data on some of the response measures. (See Tables 2 through 5.) Statistical analyses, conducted on both studies combined, will be presented in a later section.

Predictions. For both predictions, the NDs gave the greatest number of acceptable responses. The ordering of the other two groups was not stable across the two predictions. There is a very wide variety of possible events that might occur in a realistic story, and the students could operate within this broad band of acceptability (i.e., no one brought up elves). While the six expert readers' predictions tended to be more focused on Cress's outrageous behavior and thus were more clearly oriented toward the theme of the story, the only predictions that we felt we could call inappropriate were those that rather directly contradicted story information, or "I don't know."

Theme Statement. All ten ND students provided acceptable theme statements, but only one student in each of the other groups did so. Typical statements from NDs included: "Just be yourself" and "About a person trying to find out what really stamps them as a person." LD statements included: "About her life, her life at school" and "This is what happens when you clown around too much." YND statements included: "Well, she's just being left out" and "Not to be selfish; not to be a show-off."

Theme Awareness. Although the above measures did not differentiate the LD students from the YND students, further analyses did reveal differences. As stated above, only one LD and only one YND student had included the issue of identity in their theme statements and thus were judged as having provided acceptable theme statements. However, while the other students in these two groups did not provide acceptable theme statements, it appeared from their protocols that some of them had some understanding of the story theme. That is, they used terms and phrases that suggested that they were thinking about the identity issue, e.g., they mentioned Cress's character or personality, or talked about her "knowing who she is." We identified such mentions as indicating incipient awareness of the theme. A review of the 30 protocols indicated that none of the 9 LD students who did not provide an acceptable theme used such phrases, whereas 5 of the 9 YND students who had not given a good theme statement did, as did the 1 YND student who had given a good theme statement. (Nine of the 10 ND students, all 10 of whom gave acceptable themes, also used such phrases.)

Theme Abstractness. Seven of the 10 LD themes were concrete (e.g., "That the daughter wants to be really popular") whereas only 3 were abstract (e.g., "It's about something you think is good but other people don't"). Four of the YND themes were concrete, and 6, abstract. Only 2 of the ND themes were concrete ("a young girl trying to find out what she's really good at.") and 8, abstract ("At that age you do not know who you are.")

Idiosyncratic Responses. The LD students' protocols contained the greatest number of idiosyncratic responses. One LD student predicted that Cress would read her list of traits out loud to her class and then everyone would like her, "because I used to be like that--when I was a little kid--too shy." Another student said, "I think that they are going to try to stop her by sending to another school. They will teach her a good lesson or a better way to behave--stop showing off."

METHOD: Study 2

Subjects

Subjects were drawn from the same schools as in Study 1. None of the students who participated in Study 1 were included in Study 2.

Ten learning-disabled students (6 male, 4 female), selected as in Study 1 (school identification followed by investigator-established criteria), made up the LD group. The mean age of the ten students was 14.1 years (SD = .8). The mean Extended Scale Score on the Comprehension subtest of the Gates-MacGinitie Reading Test was 521.1 (SD = 25.0), grade equivalent score = 5-9. A group of ten (ND) nondisabled students (7 male, 3 female) was selected such that its mean age (M = 13.9, SD = .4) was matched with that of the LD group. Scores on the Comprehension subtest of the Iowa Test of Basic Skills were available for these students, with a grade equivalent score for the group of 11-1.*

Another group of 10 nondisabled students (YND), 6 male, 4 female, was selected as a reading-level match for the LD group. Their mean score on the Comprehension subtest of the Gates-MacGinitie Reading Test was matched to that of the LD group; the mean extended Scale Score was 516.6 (SD = .9), grade equivalent score = 5-8. The mean age of these students was 9.9 years (SD =.9).

Materials

Another selection from Cress Delahanty was used in this study. In this story, Cress stays with her grandfather after her grandmother's funeral. The grandfather rebuffs Cress's attempts to copy her grandmother's housekeeping routines, and he ignores her generally, expresses very little of his feelings, and drinks heavily in the company of one of his friends. Cress becomes upset. The friend tries to explain her grandfather's behavior, but is unable to make her feel better.

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*We were not given permission to administer the Gates-MacGinitie Test to this group. Fortunately, we had no need to match this group on the basis of reading scores.

As in Study 1, the story was condensed from approximately 2,800 words to approximately 1,825 words, and divided into three sections, containing 600, 600, and 625 words in the first, second, and third sections, respectively.

Procedure and Scoring

The procedure and scoring systems were the same as in Study 1. In this study, the number of important idea units that were included in the scoring template for the summaries was 16 (6, 4, and 6 in Sections 1, 2, and 3, respectively). Reliabilities were calculated as had been done in Study 1 and were at least .90.

All six expert readers offered story themes that centered around the notion that grieving takes many different forms. One reader said, "How people cope with death; they may not cope as you do." Another said, "People deal with their feelings of loss differently."

RESULTS: Study 2

Predictions. As in Study 1, NDs provided the greatest number of acceptable predictions ("Cress might have a talk with Grandfather about Grandmother; how she's upset that she died, maybe talk about old memories."). However, almost all of the predictions made by all three groups were judged acceptable. For example, one LD student said, "Cress will probably stay with Grandfather...try to cook and clean, try to take care of him, but then after a few months stay with Mother." One of the YND predictions was, "Cress might get angry...break down at the table...start crying." Yet some of the responses made by students in the latter two groups, while plausible, certainly missed the point: "Maybe Cress will make something for dinner." These examples are from Prediction 1; the same pattern was seen on Prediction 2. There was one other difference between these predictions and those given in Study 1: Study 2 predictions were more elaborated and detailed, suggesting that the students (in all three groups) were more interested and involved in the story used in Study 2.

Theme Statements. As in Study 1, more ND students than LD or YND students offered acceptable theme statements. One ND student said, "That people deal with hurt in different ways...no one's saying which way is good." Another ND statement, not to the point, was "To never forget anybody you lost." An LD student said, "Love for her grandmother." A YND response was, "Even though someone is not there, you should never forget them."

Theme Awareness. A count was made of the number of students whose protocols indicated an awareness of the importance to the story of the relationship of Cress and her grandfather. As in Study 1, the ND group showed most theme awareness, and the YNDs displayed more theme awareness than the LDs. Indeed, the number of YNDs who displayed theme awareness was almost as high as the number of NDs who did so. Seven YND students showed evidence of the importance of this relationship (including the two students who were scored acceptable on the theme statement), whereas only two LD students showed such evidence (the one LD student to get the theme did not show such evidence). Eight ND students displayed an awareness of the importance of the relationship between Cress and her grandfather; this included all 7 ND students who had provided acceptable statements of the theme.

Theme Abstractness. NDs' themes were judged more abstract than the other two groups'. Among the themes offered by the LD students, six were concrete ("Cress will never forget her grandmother") and 4, abstract ("Someone dies, you should keep them close to you because you love them, you shouldn't let it go too far"). The YND students also provided 6 concrete themes ("The grandmother died and they miss her.") and 4 abstract ones ("That you can't stop loving somebody if you love them no matter what happens"). In contrast, only two themes provided by ND students were classified as concrete ("Don't think Cress realizes that there are different ways of dealing with things."), and 8 were classified as abstract ("That people deal with hurt in different ways...no one is saying which way is good").

The notion that the formulation of theme as a general, abstract statement is developmental (Applebee, 1978) is underscored by one ND response that we scored as abstract. It might be considered a transitional response, in that the student started out with a general statement but could not express the entire thought within a general formulation and so reverted to talking about the plot: "The loss that one person can face and in that loss they don't understand how...Cress is feeling very hurt inside...she's in mourning... she doesn't understand how Grandfather cannot even have any emotion in his face, not talk about her."

Idiosyncratic Responses. The LD students' protocols contained the greatest number of idiosyncratic responses. One LD student described Cress as "Just a girl who's been working in a small town." Another LD student declared that Cress's mother "doesn't think she can take care of herself... Her mother thinks Cress is real young." One ND student said, "She wants to be with her grandfather so much that she'll do anything to be with her grandfather."

ANALYSIS OF THE TWO STUDIES COMBINED

Subject Information. Table 1 presents descriptive information on the students who participated in the two studies. Analysis of variance indicated that age was a significant factor, $F(2,54) = 176.16$, $p < .001$, $MS_{error} = 76.89$. The age of the LD group did not differ from that of the ND group, $F(1,27) = 0.77$; those two groups together were significantly different from the YND group, $F(1,27) = 175.38$, $p < .001$. There was no significant difference between the two studies, $F < 1$.

Because no reading scores were available for the NDs in Study 2, the Study 1 data on this measure were analyzed separately. With respect to reading level, there was an overall difference among the groups in extended scale score, $F(2,27) = 35.71$, $p < .001$, $MS_{error} = 34582.3$. The LD and YND groups did not differ, $F(1,27) = .009$; those two groups were significantly different from the ND group, $F(2,27) = 71.41$, $p < .001$.

Next, an analysis of variance was conducted on the reading scores as a function of replication (Study 1 vs. 2) and student group (LD vs. YND only). There was no difference in the two student groups, $F(1,36) < 1$; scores for Study 1 were significantly higher for Study 1 than for Study 2, $F(1,36) = 4.71$, $p < .05$; and there was no interaction.

Summaries. Of the 12 important idea units provided by the expert readers for Study 1, the number that each student included in the summary was determined. The same was done for Study 2 based on the 16 important idea units provided there. Table 2 presents the mean proportion of important idea units for each group in each of the two replications. This measure differentiated the groups, $F(2,54) = 16.75$, $p < .001$, $MS_{error} = .027$.

The mean score of both the LD and the YND groups was .23; there was a significant difference between those groups and the ND group (M = .49), $F(1,27) = 35.33$, $p < .001$.

There was a difference in the proportion of important idea units as a function of replication (Study 1 mean = .24, Study 2 mean = .38), $F(1,54) = 5.93$, $p < .02$, $MS_{error} = .027$. There was no interaction between subject group and replication, $F(2,54) = 2.45$.

Predictions. The number of predictions (0-2) judged to be acceptable was determined for each student. Table 3 presents the mean number of acceptable predictions made by each group in each of the two replications. There was a significant effect of group, $F(2, 54) = 4.02$, $ms_{error} = .278$, $p < .05$. Specific comparisons indicated that the ND students made more predictions than did the students in the other two groups, $F(1, 54) = 7.68$, $p < .01$; the LD and YND groups did not differ, $F(1, 54) = .36$. There were significantly more acceptable predictions made in Study 2, $F(2, 54) = 8/64$, $p < .005$. There was no interaction between the two variables.

Theme Statement. Logistic regression analysis was performed on the number of students in each group and replication who provided a theme statement that was judged acceptable.* (See Table 4 for these data and for data on other measures described below.) There was a significant effect for group, $X^2_{(2)} = 34.94$, $p < .001$. The NDs scored significantly higher than did the other two groups, $X^2_{(1)} = 34.84$, $p < .001$. The

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X^2 in logistic regression is analogous to F in ANOVA. The distribution of X^2 is approximated by the distribution of , and is F with infinitely many degrees of freedom in the denominator (Hosmer & Lemeshow, 1989).

LDs and the YNDs did not differ, $X^2_{(1)} = .17$. Neither Replication, $X^2_{(1)} = 1.31$, nor the interaction, $X^2_{(1)} = 4.50$, was significant.

Theme Abstractness. A logistic regression analysis showed the same pattern of results for this measure. There was a significant effect for student group, $X^2_{(2)} = 8.95$, $p < .02$; the NDs scored significantly higher than did the other two groups, $X^2_{(1)} = 7.99$, $p < .005$, and the other two groups did not differ, $X^2_{(1)} = .92$. Neither Replication, $X^2_{(1)} = .04$, nor the interaction, $X^2_{(19)} = .95$, was significant.

Theme Awareness. The pattern of findings was different on this measure. Logistic regression indicated that, overall, group made a difference, $X^2_{(2)} = 23.27$, $p < .001$. Not only did the ND group score significantly higher than the other two groups, $X^2_{(1)} = 12.54$, $p < .001$, but also the YND group scored significantly higher than the LD group, $X^2_{(1)} = 11.24$, $p < .001$. Neither Replication, $X^2_{(1)} = .04$, nor the interaction, $X^2_{(1)} = .91$, was significant.

Idiosyncratic Responses. Table 5 presents the mean number of idiosyncratic responses for each group in each of the two replications. The overall group effect was significant, $F(2,54) = 3.33$, $p < .05$, $MS_{error} = .74$. The prediction that the LDs would make more idiosyncratic responses than would the other two groups was confirmed, $F(1,54) = 4.80$, $p < .05$. There was no significant difference in the number of idiosyncratic responses made by the NDs and the YNDs, $F(1,54) = .10$. Neither Replication, $F(1,54) < 1$, nor the interaction, $F(2,54) < 1$, was significant.

Theme Statement and Idiosyncratic Responses. A Mantel-Haenzel test indicated that there was no relationship between the presence/absence of idiosyncratic responses and the presence/absence of an acceptable theme statement. Across both experiments, $^{2}_{(1)}$ for homogeneity was .51, and $^{2}_{(1)}$ for association was 1.37.

Theme Awareness and Idiosyncratic Responses. A Mantel-Haenzel test indicated that there was a significant relationship between the presence/absence of idiosyncratic responses and the presence/absence of theme awareness. Across both experiments, $^{2}_{(1)}$ for homogeneity was .09, and $^{2}_{(1)}$ for association was 4.66, $p < .05$. The probability of achieving theme awareness, given no idiosyncratic responses, was .66, whereas the probability of achieving theme awareness, given the presence of idiosyncratic responses, was .36.

When this analysis was done for each student group separately, it was found that the two experiments were homogeneous in all three cases and that there was a significant relationship between the two variables for the YND group, $^{2}_{(1)} = 8.0$, $p < .005$, but not for the LDs, $^{2}_{(1)} = .23$, or for the NDs, $^{2}_{(1)} = .99$. For the YND students, the probability of achieving theme awareness, given no idiosyncratic responses, was .86, whereas the probability of achieving theme awareness, given the presence of idiosyncratic responses, was .17. (For the LD students, these probabilities were .18 and .11, respectively, and for the ND students, 1.00 and .80.)

DISCUSSION

Ability to Identify Narrative Themes. Students in the nondisabled group showed proficiency in the experimental tasks, indicating that the tasks were well within their capabilities. There was a substantial difference between the performance of these students and that of their younger nondisabled counterparts. Clearly, a large amount of improvement occurs across the ages represented by the two groups of subjects. This improvement is likely due to a complex combination of maturation and general experience as well as of instruction: a great deal of emphasis is put on literature instruction during these years.

On most measures, the learning disabled students (LD) performed below the level of nondisabled students of comparable age (ND) and at the same level as younger nondisabled children (YND) who had similar scores on the standardized reading test. This pattern is not surprising, given the similarity of our measures to items found in tests of reading comprehension and the close relationship of reading and listening comprehension proficiencies at these ages (Sticht & James, 1984).

However, the pattern of findings was different on one of the two theme identification measures, theme awareness. On this measure, the LD students performed significantly more poorly than the YND students, whose reading comprehension level was no higher. If in fact the LD students did indeed have difficulty with theme identification, why did they not also demonstrate less ability in providing a theme statement? We suggest that the LDs were more sophisticated and articulate than the YNDs, and that these attributes compensated for and masked their difficulties with theme identification.

That is, if the LDs did have any incipient theme awareness, they could articulate that awareness well enough to provide an acceptable theme statement, whereas the YNDs were less likely to be able to do so. The LDs presumably could do this because they had had more years of schooling and experience, one effect of which might well be easier, more effective communication in a one-to-one situation with an adult. This is especially likely given the individualized instruction typically offered in private schools for learning-disabled students.

These findings corroborate the notion that LDs do poorly on gist tasks of various kinds, as discussed earlier. Previous studies, however, generally involved comparisons of same-age LDs and NDs whose overall comprehension levels were different, and that difference might have accounted for the findings.

The present findings make a stronger case. They suggest that LDs have a specific difficulty in getting the point of a text and that perhaps, as they grow up, they develop other abilities that serve as a mask or compensation for that difficulty--a mask that operates in a wide variety of situations, including classroom discussion and perhaps some school tests. (Goshwami and Bryant [1990] make a similar point in a different context.)

Of course, the present findings need to be replicated in a variety of contexts. And it would be desirable to develop an experimental task that did not rely on judges' wholistic evaluations.

Idiosyncratic Importations and Theme Identification. As predicted, the LD students made more idiosyncratic importations than did either of the other groups of students. Also as predicted, there was a greater likelihood of theme identification (on the Theme Awareness measure) when there were no idiosyncratic responses. Both of these findings replicated the results of a previous experiment in which the text consisted of a short problem and the point was the problem solution (Williams, 1991a). Thus the hypotheses of the present study were supported. While it might have been expected, based on the Williams (1991a) study, that the data for the LDs alone would also show a significant inverse relationship between idiosyncratic responses and theme awareness, there was no real opportunity for the relationship to be demonstrated in this group: across both studies, only 3 LD students achieved theme awareness.

The concept of theme is related to the concept of main idea, although there is not total overlap (theme is usually more abstract), and the results of a study using expository text (Taylor & Williams, 1983) may be relevant here. Taylor and Williams asked learning disabled students and younger nondisabled students matched on IQ and reading vocabulary to read short paragraphs. Some of the paragraphs included a sentence containing information either unrelated or else only tangentially related to the text's propositional hierarchy. The nondisabled students were better able to pick out the unrelated sentence, the closer that sentence was to the end of the paragraph; but the learning disabled children were not. This suggests, in line with the present data, that the LDs were not as good at building up a representation gradually as the information in each succeeding sentence was processed.

Story Content. The similarity of the results of the two studies suggests that the findings were not simply a function of the particular content of the text used. To examine this issue more closely, we looked further for any indication that content might be confounding our findings.

We found that in Study 1, there was a substantial number of protocols in which the students made predictions that involved Cress and her parents or other authority figures. These predictions had to do either with Cress's seeking advice, attention or approval or with the way in which authority figures would react to Cress. Out of 60 opportunities (30 subjects and 2 prediction points), LDs made 14 such predictions, 6 on Prediction 1 and 8 on Prediction 2. YNDs made 6 (4 on Prediction 1 and 2 on Prediction 2), and NDs also made 6 (4 on Prediction 1 and 2 on Prediction 2). It may be that story content is relevant to this observation. Learning disabled students, perhaps because of home and/or school training, may be more likely to consult with parents and teachers when they need help--a difference between our LD and YND subjects that has to do not with reading or cognitive differences but with expectations about the world.

However, it is probably more likely that the LD students were responding to local information cues, because both interruption points occurred during discussions between the parents. This interpretation suggests that the differences between LDs and YNDs on this measure have to do with differences in reading ability--in fact, with differences in ability to get the point. A finding of Taylor and Williams (1983) supports this interpretation. They found that compared to nondisabled readers, learning-disabled readers, when asked to add an additional sentence to an expository paragraph, were more likely to respond to the information in the immediately preceding sentence than to the main idea of the paragraph. Moreover, we found nothing in the second study to suggest that the groups' performance was a function of content. Thus, it appears that we can disregard complexities due to story content.

Table 1

Age and Reading Level

Study 1	Learning Disabled	Nondisabled	Young Nondisabled
Age in Years			
Mean	13.8	13.7	10.4
S.D.	0.8	0.5	0.6
Reading Level*			
Extended Scale Score			
Mean	541.8	641.3	540.1
S.D.	37.7	28.7	25.7
Grade Equivalent	6-8	12-1	6-8
Study 2			
Age in Years			
Mean	14.1	13.9	9.9
S.D.	0.8	0.4	0.9
Reading Level*			
Extended Scale Score			
Mean	521.1		516.6
S.D.	25.0		35.0
Grade Equivalent	5-9	11-1**	5-8

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*Gates-MacGinitie Comprehension Subtest; no scores available for the ND group in Study 2.

**Iowa Test of Basic Skills Comprehension Subtest.

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Table 2

Mean Proportion of Important Idea Units Recalled

	Learning Disabled		Nondisabled		Young Nondisabled	
	Mean	SD	Mean	SD	Mean	SD
Study 1	.21	.17	.38	.13	.22	.19
Study 2	.26	.19	.62	.17	.25	.15

Table 3

Mean Number of Acceptable Predictions

	Learning Disabled		Nondisabled		Young Nondisabled	
	Mean	SD	Mean	SD	Mean	SD
Study 1	1.30	.82	1.80	.42	1.20	.63
Study 2	1.80	.42	2.00	.00	1.70	.48

Table 4

Frequency of Occurrence of Acceptable Theme Responses

	Learning Disabled		Nondisabled		Young Nondisabled	
	Study 1	Study 2	Study 1	Study 2	Study 1	Study 2
Theme Statement	1	1	10	7	1	2
Theme Awareness	1	2	9	8	6	7
Theme Abstractness	3	4	8	8	6	4

Table 5

Mean Number of Idiosyncratic Responses

	Learning Disabled		Nondisabled		Young Nondisabled	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Study 1	.90	.99	.30	.48	.30	.48
Study 2	1.00	1.33	.30	.67	.50	.85

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AN INSTRUCTIONAL PROGRAM IN COMPREHENSION OF NARRATIVE THEMES FOR ADOLESCENT LEARNING DISABLED STUDENTS*

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AN INSTRUCTIONAL PROGRAM IN THE COMPREHENSION OF NARRATIVE THEMES FOR ADOLESCENT LEARNING DISABLED STUDENTS

The reading curriculum has changed dramatically over the past few years. Criticisms of the quality of texts and instructional methods typically used in both elementary and secondary school (e.g., Goodman, 1986; Hansen, 1987) have led to the rejection, in many quarters, of basal reading programs with their emphasis on abbreviated text selections and the development of skills. The new reading programs are literature-based, and they emphasize original, unadapted classics and contemporary multicultural literature (Atwell, 1984; Cullinan, 1987). In addition, they rely on student-led, instead of teacher-dominated, discussion and also on writing activities (Strickland, Dillion, Funkhauser, Glick, & Rogers, 1989). At this point, as the development of these curricula proceeds, some of the programs are doing very well. But there is, according to Liebling (1989), a "potential for chaos"; she cites the lack of a specific curriculum and the lack of agreement as to which reading abilities are introduced, developed or evaluated as two serious problems.

The new emphasis on authentic literature is based in part on the notion that narratives are valuable vehicles for teaching comprehension because the situations depicted reflect the conflicts and complexities of everyday life. Indeed, there has been a surge of interest in efforts to use narrative in content area classroom learning (e.g., biographies of notable figures in history and social studies); interpersonal problem-solving (discussion of case histories and problem instances, Shure & Spivack, 1978; Williams & Ellsworth, 1990); moral education (fables and anecdotes, Tappan & Brown, 1989; Vitz, 1990); and child psychotherapy (exchange of stories by child and therapist, Gardner, 1987). The assumption is that it is easier to impart knowledge when it is presented in the form of a concrete example, because the example immediately illustrates how that knowledge is related to real-life situations.

The considerable advances that have been made in the area of reading comprehension instruction over the past decade are of great value in designing and implemeneting the new curricula. However, much of this work has centered on the teaching of individual component skills and strategies. Critics of this approach (Winograd & Johnston, 1987; Pressley, El-Dinary, Gaskins, Schuder, Bergman, Almasi, & Brown, 1991) point out that there has been little attention devoted to helping readers to understand a passage as a whole and to integrate passage meaning with concepts and experiences that are personally meaningful to them. Such an expansion and integration of comprehension instruction is a goal of the new curriculum.

Learning disabled children and adolescents would seem to be prime candidates for interventions based on this new approach to reading instruction, given the problems that they have in the social arena (e.g., Pearl, Donahue, & Bryan, 1986) as well as the difficulties they exhibit in many academic areas, especially reading (Stanovich, 1986). Although there has been considerable improvement in teaching beginning reading to learning disabled children (Clark, 1988), there is still a serious need to give special attention to these children at higher grade levels. LD children and adolescents demonstrate substantial problems in comprehension that cannot be attributed to difficulties in the rudiments of reading (Williams, 1987), e.g., poor comprehension monitoring, a passive approach to tasks, inefficient text scanning strategies, and insensitivity to text structure (Stanovich, 1986).

Ironically, learning disabled students are in danger of losing rather than gaining from the new curriculum reforms. These students respond well to highly structured instruction (Duffy, Roehler, & Mason, 1984; Graham, Harris, MacArthur, & Schwartz, 1991; Stevens, Slavin, & Farnish, 1991). Because the philosophy of the new curriculum movement emphasizes an integrated whole, the importance of structure may be overlooked. How can the goal of a broad, integrative curriculum be incorporated into effective instruction for learning-disabled students?

Our Instructional Program. We have developed an instructional program that broadens the focus of the instruction without relinquishing the emphasis on structured, direct instruction that has proved valuable for this population. The program teaches students to go beyond plot-level comprehension of a story to (1) identify a theme that is exemplified by the story; and (2) generalize that theme to personal experience. The program takes a strategic approach to instruction; however, the main focus is not on improving students' strategies but on teaching a fundamental aspect of narrative comprehension--theme--that has been sorely lacking in most instruction (Purves, 1981; Singer & Donlan, 1982).

The program focusses on a single theme for a substantial portion of the instruction. Many learning disabled students are successful at learning content that is taught explicitly, but they have great difficulty making generalizations. The extended emphasis on one specific theme permits consideration of that theme within an array of varied examples and contexts.

The program also includes stories that exemplify several additional themes, which allows the students to use their new understandings and strategies to identify and apply other story themes. Thus the program, with its small and gradual steps along the generalization continuum, teaches both content and process (Brown & Palincsar, 1989).

The Concept of Theme. The recent research in comprehension has not included much attention to theme, yet there is a sense among theorists that theme is an important concept, unique to the narrative genre. Lukens (1982) defines theme as "the idea that holds the story together, such as a comment about either society, human nature, or the human condition" (p. 101) and, according to Huck, Hepler, and Hickman (1987), "theme provides a dimension to the story that goes beyond the action of the plot" (p. 19). Thus, to understand the theme is to understand an abstraction of the events described.

Our Definition of Theme. Within the developmental literature, Lehr (1988) described themes in terms such as "friendship" (and found that even kindergartners could match stories that had similar themes, though they could not generate themes). A similar notion of theme is used by Dyer (1983; Seifert, Dyer and Black, 1986), who notes that relationships among story components form particular patterns, which they call thematic abstraction units. These are concepts that remain the same regardless of the particulars of the story. For example, a college student plays his radio late into the night, and so his roommate stops giving him his telephone messages; the pattern here is one of retaliation. The same pattern can occur within many different contexts, e.g., one country calls for an oil embargo on another country in response to a terrorist attack.

But we believe that this notion is best expressed as a concept, not a theme. A theme does indeed involve such a concept, but it also involves something more. Dorfman and Brewer (1988; Dorfman, 1989) have made an important contribution to the conceptualization of theme. These investigators addressed one specific type of story, the fable, in which the theme, or "point," is the didactic message or lesson embodied in the text. They proposed that in order to generate the point of a fable, one must attend not only to the pattern among important plot components (which, in the case of the fable, are defined as event and outcome) but also must highlight the value valence accorded to these plot components. That is, the reader must evaluate the outcome, given the event, in terms of his/her moral understanding; and this evaluation provides a moral judgment. The combination of the plot pattern (the concept) and the moral judgment results in the point. For example, if the event is an evil action (such as lying) and the outcome is negative for the performer of the evil action, the story will communicate a theme such as, "One should not lie." Dorfman and Brewer assert that people make these judgments in terms of the "just world" hypothesis.

Dorfman and Brewer's model was developed for fables and points, but it can be expanded to include other types of stories and themes as well: A theme expresses a pattern among story components in a form that is abstracted from the specific story context, and it also comments on that pattern in some way. The comment that is invited in a fable is evaluative, but in other types of stories, it need not be.

More generally, a theme involves a commentary attached to a core concept. This commentary can take the form of a lesson (with a value judgment) as in Dorfman and Brewer's examples, or it can consist simply of an observation, with no value judgment attached (e.g., "Some people lie." or "Some people lie when they are very upset."). This commentary operates at the concept level, not the plot level; that is, the lesson or the observation is generalized beyond the specifics of the particular story plot.

It should be noted here that current constructivist theories, e.g., schema theory (Rumelhart, 1980) and reader-response theory (Rosenblatt, 1978), emphasize that meaning is strongly dependent on the reader. Since any text contains gaps in the information provided, which readers fill in via inference-making, and since each reader is unique in ability, background, and interest, any single reading of a test is different; there is no "correct" reading or understanding of a given text. But constructivists (e.g., Iser, 1974) also point out that readings can be more or less complete with respect boty to encompassing the information presented explicitly and to making use of the gaps that allow the construction of personal meaning. Fish's (1980) concept of "interpretive community" reflects the idea that a person's perceptions and judgments--and readings--depend on the assumptions shared by the groups of which he is a member. Thus, there is a text meaning on which a group of readers might agree, in addition to the infinite number of personal meanings that can be constructed for any given text. The sophisticated reader is able to derive both personal and consensual meaning from text. (See also Bleich, 1978.)

In this regard, it may be useful to think of theme as a family of related statements rather than a single statement. Individual responses may well differ, depending on previous experience, particular needs, and ability, but a successful reading is likely to contain core elements that are common across readers. "A text," according to Golden and Gerber (1990), "is a dynamic symbol generating textual patterns that suggest a family of constructed texts." And of course, complex stories may have multiple themes or theme families.

Purpose

The purpose of this paper was to describe and evaluate an instructional program that touches upon the areas of both reading comprehension and social problem solving instruction (Williams, 1991). Children are taught to derive a theme concept from the major plot components of brief stories and to highlight the value valence of the plot components, and from there, to abstract the resultant theme and use it in the consideration of personal experiences. Because stories whose themes can be characterized as lessons are common in children's literature, we have focussed on materials of this type. Because the instructional program is targeted for learning disabled students, it incorporates general principles that have been found useful in other instructional areas with this population--for example, direct instruction, active involvement, and scaffolding (see Wixson & Lipson, 1991).

Two studies are reported. In the first study, learning disabled (mainstreamed, resource room classification) and nondisabled fifth and sixth graders who received our instruction were compared with children who did not. In the second study, learning disabled seventh and eighth graders in self-contained classrooms received either our instructional program or traditional instruction (based on basal readers).

The Instruction

The program consists of a series of lessons, each of which is organized around a single story and consists of five parts: (1) Teacher states purpose of lesson and initiates pre-reading discussion; (2) Teacher reads the story out loud while students follow along with their own copies; (3) Teacher uses organizing or schema questions as a basis for discussion; (4) Teacher and students identify a theme for the story and phrase it in general terms such that it is relevant to a variety of situations; (5) Teacher and students discuss how the theme could be applicable to real life experience.

In Study 1, the series contained nine lessons, and the description that follows is based on a series of this length. Appendix 1 presents the synopsis of one of the instructional stories and an outline of the lesson based on that story. The outline is sketchy because the program is designed so that the individual teacher's contribution will be substantial.

I. Statement of Lesson Purpose and Pre-Reading Discussion

There were two components of the first part of each lesson: (1) a statement of its purpose and (2) pre-reading discussion; both have been shown to result in improved comprehension (Baumann, 1984; Anderson & Pearson, 1984).

These components were modified over the course of the series of lessons, as the responsibility was moved from teacher to student (Brown & Palincsar, 1989; Vygotsky, 1962). In the first three lessons, teachers defined theme, explained the value of understanding story themes, and identified and discussed the theme that would be found in that day's story. In lessons 4-9, teachers introduced and discussed the topic of the story, but students generated the theme in discussion.

II. Reading the Story

In each of the nine lessons, the teacher then read the story aloud while students followed along with their texts (so that decoding difficulties would not interfere with comprehension). The teacher interposed questions at various points during the reading. These questions were designed to encourage students to process the story information actively and to clarify important story points.

The teacher then discussed the main points of the story and read a summary of the story that highlighted its main events and outcome. This was done because comprehension of the story on the plot level is prerequisite to theme comprehension. Moreover, learning disabled students are particularly likely to have trouble identifying the important story components (Wong, 1984). Their story comprehension is often more idiosyncratic than their nondisabled peers' (Williams, 1991). Because of these factors, it was important to ensure that all students had a good grasp of the story on a plot level before theme instruction began.

III. Organizing Questions (Schema Questions)

Five questions were designed to help the students organize the important story components and to derive the thematic material from it. So that students would internalize these generic questions over the course of the instruction, the teacher urged them to ask themselves these questions during each lesson. The questions were presented on the chalkboard and on a handout in lessons 1-7. In lessons 8-9, students attempted to recall them from memory.

The first three organizing questions helped the student focus on the important story components from which a theme-concept would be derived--main character, central event, and outcome. They were, "Who is the main character?", "What did he do?", and "What happened?" The answers to these questions reflect the content of the written summary of the story that was read to the students in Part II. Thus the questions gave the students a self-instructional strategy for finding the important information and so enabled them to develop and internalize strategies for extracting and organizing important story components independently (Reutzel & Hollingsworth, 1988).*

The last two organizing questions were designed to encourage the students to make the judgments that when combined with the theme concept lead to theme identification. The questions were "Was this good or bad?" and "Why was this good or bad?" During the first three lessons, the discussion of Question 5 (Why was this good or bad?) was led by the teacher. Starting in Lesson 4, the students began the discussion without prompting from the teacher.

IV. Statement of the Theme in Standard Format

Following the organizing questions, students learned to state the theme in a standard format. The standard theme format was defined as an imperative or a "should" statement.

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*Instructional programs often concentrate on this step, but the purpose of our program was to go beyond. Therefore, we used simple stories for which there would not be great difficulty on this step. Dreher and Singer (1990) found that story grammar instruction was unnecessary for intermediate students (though they were not talking specifically about learning disabled students).

Students learned two generic statement frames:

(Main character) should have (should not have) _______________.

We should (should not) _______________________________________.

The first frame puts the theme into the should format. The second frame applies it to situations and people other than those in the story. (In stories in which it was appropriate, the second frame was followed by "We should always/never.... .)

These statement frames were written on the blackboard in lessons 1-3 and included on the handouts used in lessons 4-6, and they were generated by the students in lessons 8 and 9.

V. Generalization to Real Life Experiences

In the final component of the instruction, students were taught a strategy to help them generalize the theme to other relevant life situations. Seldom are students taught to make connections across educational experiences; however, if one purpose of teaching LD students to identify themes is to enhance social problem solving skills, such application instruction is essential.

Students were told to try to apply the theme to real life and were taught to ask themselves these generic questions to help them in their application:

1. To whom would this theme apply?
2. When would it apply--in what situation?

It was suggested that teachers discuss every example that the students offered. (Of course, the teacher could propose examples if the students were at first not forthcoming.)

In lessons 1-7, the two questions were written on the chalkboard and included on the handout. In lessons 8-9, students were asked to generate the two questions from memory, with reminders from the teacher if necessary.

It was anticipated that some students would have trouble generating real-life examples even with the questions as cues. Therefore, for each story, a more explicit form of each question was included, to be used as prompts when necessary. In these more explicit questions, the "who," and "in what situation" were elaborated.

The Stories. The nine instructional stories, the pretest story, and the posttest story were all taken from basal readers (four different series); in most cases the stories had originally appeared in trade books. Each was under seven pages long and contained a clear theme, as judged by three adult readers. Only stories for which there was consensus as to theme were used.

Five of the nine stories exemplified a single theme, "We should persevere." These stories appeared in lessons 2, 3, 4, 7, and 8. Each of the other four stories exemplified a different theme, concerning greed, cooperation, pride, and openness to experience, all expressed in the theme format (We should....) described above.

Introducing the Program to Teachers. An inservice session was held to familiarize the teachers with the instructional program. In these sessions, we worked with the teachers in small groups. The teachers were given general guidelines as to what to say to students and what to elicit from them but were asked to formulate the actual discussion according to their own style and preference. They were also free to use the materials provided (e.g., questions designed to be asked during the story reading in whatever way they felt would be most suitable for their students).

Method

Study I

Subjects. Subjects were 69 students in two neighboring and quite similar New York City (Manhattan) public schools. The total enrollment of the two schools included 59% white, 18% Hispanic, 12% Black, 10% Asian, and 1% students of other ethnic origins; 18% qualified for free or reduced-rate lunches.

Four fifth-grade and four sixth-grade regular-education classrooms were used. Each class included a small number of children who had been certified as learning disabled by the New York City Board of Education. These children received resource room services for part of each day; the rest of their instruction was provided to them and to the other nondisabled class members together in the regular classroom. *A priori* criteria for classification as learning disabled, established by the investigator, were used to screen this school-identified population. These criteria included a full-scale IQ of 85 or higher, achievement level at least 1.5 grade levels below expectation, and no gross behavioral problems as assessed by psychological evaluations by school psychologists. These represent identification criteria similar to those used in other studies (e.g., Torgesen, Rashotte, & Greenstein, 1988).

The participants consisted of all the learning disabled students in each of the eight classrooms (total N = 31), plus a number of nondisabled students in each classroom (total N = 38), selected at random.

All students took the Degrees of Reading Power test (DRP), which assesses reading comprehension, as part of the regular city-wide testing program, within two months of the completion of the study. The DRP test does not permit conversion of scores into grade-equivalents. The level of proficiency of the students in reading can be best understood in terms of an estimate based on national percentile scores. Across the two schools, the nondisabled students in our sample scored at about the 74th percentile, and the disabled students at the 30th percentile. Chronological age was also available from the school records. Because we were not given access to test results or background information about individual children, the Vocabulary subtest of the Wechsler Intelligence Scale for Children--Revised (Wechsler, 1974) was administered following the posttest.

The eight intact classes were randomly assigned to the instructional or the control group, with the restriction that each school and each grade be represented equally in both conditions.

Design and Procedure. In this first study, the program was simply evaluated against a no-instruction control condition, in which students were given no instruction other than what was provided in the regular curriculum. We used a pretest/posttest design. Both the pretest and the posttest consisted of audiotaped individual interviews. Some of the dependent measures derived from the interviews range from measures of simple mastery to measures of transfer. That is, some focus on material specifically taught in the program, and others evaluate performance on transfer tasks (both "near" transfer and "far" transfer, Brown & Palincsar, 1989). The measures are described here and in the Tables in an order that reflects this logical sequence. The relevant questions were not asked in this sequence during the interview, however, because that would have confounded the findings. Rather (in the posttest), the questions concerning perseverance, the focus of 5 of the 9 stories used in instruction, came at the end of the interview.

Pretest. Students were asked to define theme. It was then explained to them that "a theme is a lesson that you can learn from a story." After listening to a story read by the interviewer (students followed along with their own copies of the text), they were asked a series of comprehension questions about the story, were asked to state a theme of the story ("If you were going to use this story to teach a lesson to someone, what would that lesson be?"), and to tell a story of their own to which the same theme was applicable. All of these measures were repeated on the posttest and will be described in more detail below. The interview was structured loosely enough to allow a natural interchange between student and interviewer (Gordon, 1980). It lasted about 20 minutes.

Instruction. Then the students received their instruction, 9 forty-minute lessons at the rate of 3 lessons per week, as described above. Control students received no special treatment.

Posttest. All posttests were administered within three days of the final instructional session. The posttest was similar to the pretest. Students were asked to define theme, and after listening to a taped story whose theme was different from any of the themes that they had encountered during instruction, they answered comprehension questions, provided a theme statement, and told a story of their own, as described above. In addition, they listened to a story that exemplified the theme on which much of the instruction had focused, "We should persevere." They provided a theme statement, told a story of their own, and defined perseverance. Posttest interviews lasted approximately 30 minutes.

Thus the posttest contained items that evaluated (1) content that was specifically taught during instruction (the definition of the concepts of theme and of perseverance, and theme application of the perseverance theme (generating a story with that theme); (2) "near transfer" (identifying the theme of a previously-unheard perseverance story); and "far transfer" (identifying a theme of a story and generating a story about that theme, when that theme had not been represented in any of the instructional stories).

The comprehension questions (both of story details and of major story components) were included not because we expected that the students would show improvement on them as a function of the instruction, but because they served as a check to ensure that the students understood the stories on the plot level. Because of the length of the posttest, no story comprehension or story components measures were administered on the story concerning perseverance. Given the uniformly high comprehension scores on the novel-theme story (as well as on the pretest story) and the scores on the other measures evaluating performance on the perseverance story, it seems reasonable to conclude that scores on story comprehension and story components would have indicated that the perseverance story had been comprehended well at the plot level.

Scoring. To develop the scoring system for each measure, two people read the protocols and sorted all the responses into categories. Then those two people and one other person determined, by consensus, which of those categories represented acceptable responses and which did not; or, for certain measures, how the response categories were to be ordered and assigned numerical scores. The actual scoring was done by other individuals, blind as to type of subject and treatment. Interrater reliability for the scoring of each measure (percent agreement between two scorers) was 90% or better. Appendix 2 presents examples of students' responses.

Classroom Observation. Each classroom was observed at least twice during the course of the instruction, to ensure fidelity to treatment. It appeared that all teachers were operating within the general guidelines we had set forth; indeed, most of the teachers followed the guidelines quite closely, incorporating them into their own varied teaching styles.

Results

Characteristics of the Subjects. Table 1 presents the mean age of the subjects as a function of type of student and treatment condition. An analysis of variance was performed in which the classroom was the unit of analysis, as was the case in all of the statistical analyses. There was no difference between learning-disabled and nondisabled students, $F(1,4)<1$, $ms_{error} = .030$, nor between the experimental and control groups, $F(1,4)<1$, $ms_{error} = .029$. There was a difference between the fifth and sixth graders ($M=10.63$, $SD=.27$, and $M=11.73$, $SD=.17$, respectively), $F(1,4) = 39.22$, $p<.005$, $ms_{error} = .029$. There were no interactions.

Also presented are the mean scores on the WISC-R Vocabulary Subtest. The mean score for the LD group was significantly lower than that for the ND group, $F(1,4) = 14.01$, $p<.05$, $ms_{error} = 1.47$. There was no difference between the two treatment groups, $F(1,4)<1$, $ms_{error} = 4.15$; there was no difference as a function of grade (5th grade $M=10.62$, $SD=2.08$; 6th grade $M=9.17$, $SD=1.86$), $F(1,4) = 2.05$, $ms_{error} = 4.15$, and there were no interactions.

Pretest. Two of the 5 measures, comprehension of story details and comprehension of major story components, were included to ensure that students were in fact comprehending the story on a basic plot-level, which is a pre-requisite to theme comprehension: Performance on both of these measures was at a generally high level. The other three measures, ability to define the concept of theme, ability to identify a story theme, and ability to generate a story with that theme, were used to evaluate students' performance prior to instruction on the tasks that were the focus of the instruction. There were no significant differences on any of the pretest measures as a function of (a) treatment (instructed _vs_. control), (b) type of student (learning disabled _vs_. nondisabled), and (c) grade (5th _vs_. 6th), nor were there any interactions. A summary of these findings is presented in Table 2, including the results of the comparisons between the instructed and control groups. (The statistical tests used were similar to those used on the posttest data, which will be discussed below.)[1]

Posttest. Because there were no significant differences between the instructed and the control groups on the pretest, simple analyses of variance and logistic regressions were performed on the posttest data. In every case, the analysis involved three factors: (a) treatment, (b) type of student, and (c) grade. Grade was never a significant factor, nor did it interact with either of the other variables (except in one interaction, noted below). Nor was there a difference between learning disabled and nondisabled students, or an interaction involving type of student, except where noted below. Means and standard deviations of the posttest scores as a function of treatment and type of student are presented in Table 3. All significant main effects and interactions are described below.

Concept of Theme. Responses were evaluated on a scale of 0-3. Students in the experimental groups scored higher on this variable than did students in the control groups, $F(1,4) = 7.77$, $p<.05$, $ms_{error} = .255$. Examples of responses and the scores they received (for this and for the other measures) are presented in the Appendix.

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[1] Complete information about the pretest statistical analyses or other details of the studies is available from the senior author.

The Perseverance Theme. The next set of measures concerns perseverance, the focus of 5 of the 9 stories used in instruction. These measures were administered at the end of the posttest, in order not to confound the other measures. However, they are presented here and in the tables first because they are the measures that are most clearly focused on the material presented in the instruction. Note, however, that since the particular story used in the posttest was different from any of the instructional stories, the responses to the theme statement question are interpretable in terms of ability to generalize from instruction ("near transfer").

Concept of Perseverance. Responses were scored on a scale from 0 to 2. Instructed students scored significantly higher than did control students, $F(1,4) = 57.71$, $p<.002$, $ms_{error} = .100$.

Theme Identification (Perseverance). A substantial proportion of instructed students were able to provide an acceptable theme statement for the perseverance story, i.e., they identified it as a story about perseverance. Significantly more instructed than control students were successful on this measure, $X^2_{(1)} = 4.24$, $p<.05$.[*]

Theme Application (Perseverance). Again, a large proportion of instructed students were able to generate a story embodying the theme of perseverance, and the instructed groups generated a significantly greater proportion of acceptable stories, $X^2_{(1)} = 6.17$, $p<.02$.

The Novel Theme. This set of measures focused on a story whose theme had not been represented in any of the instructional stories. These measures provided an assessment of what might be called "far transfer."

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[*] X^2 in logistic regression is analogous to F in ANOVA. The distribution of X^2 is approximated by the distribution of ^{2}, and ^{2} is F with infinitely many degrees of freedom in the denominator (Hosmer & Lemeshow, 1989).

Story Comprehension (Novel Theme). The items that assessed story comprehension consisted of six questions concerning story details. Across all groups, performance was very good, indicating that the students had understood the story on the plot level and that performance on the other measures would not be affected by a lack of comprehension. There was no main effect of treatment, $F(1,4) < 1$; $MS_{error} = .253$. Nondisabled students scored significantly higher than did learning-disabled students, $F(1,4) = 8.04$, $MS_{error} = .083$, $p<.05$. There was a significant interaction between type of student and treatment condition, such that the performance of the LD control group was below that of the other three groups, which did not differ.

Story Components (Novel Theme). The three items that comprised this measure consisted of identification of the main character, central event, and outcome of the story. Performance was good across all groups. There was no main effect of treatment condition, $F(1,4) < 1$, $MS_{error} = .118$.

Theme Identification (Novel Theme). A substantial proportion of instructed students were able to provide an acceptable theme statement for the novel story, and there was a significant difference between the two treatments, $X^2_1 = 7.10$, $p< 01$. There was also a significant grade by type of subject interaction, $X^2_1 = 4.26$, $p < .05$, such that the 6th grade scores for the learning-disabled students were lower than the 5th grade LDs' scores, whereas there was no difference between the 5th and 6th grade scores for the nondisabled students.

Theme Application (Novel Theme). There was no significant difference between the two treatment groups, $X^2_1 = .22$.

Pretest vs. Posttest. A direct comparison between pretest and posttest was possible only for one measure, concept of theme. Tables 2 and 3 present the mean scores on this measure as a function of instructional treatment and disability status. An analysis of variance with 4 factors, instructional treatment, disability status, grade, and pretest *vs*. posttest, was performed. The only significant main effect was that of test, $F(1,4) = 115.51$, $MS_{error} = .038$, $p < .0005$. There was a significant pre/post test vs. instructional condition interaction, $F(1,4) = 24.73$, which indicated that there was a greater increase from pretest to posttest for the experimental students than for the control students. A test of the simple effect of the control students indicated that there was no significant increase from pretest to posttest.

Discussion

In order to provide an initial determination as to whether the Themes Instruction was effective, we compared it to a no-treatment control, and we worked with two populations, one whose learning ability had not been called into question, i.e., nondisabled students, and another, mainstreamed mildly handicapped learning-disabled students in the same classrooms. The fact that our program required no reading or writing removed a large component of the latter group's handicap.

In many respects the LD and ND students were similar in their performance, as indicated by the absence of any significant main effect of type of student (or interaction) on all except one posttest measure, which will be discussed below.

Overall, across all students, the program was effective. First, one important step in theme identification is the knowledge of what is meant by theme. Instructed students were significantly better than non-instructed students in their understanding of that concept. They also showed better performance on posttest questions that related to perseverance, the focus of five of the lessons. For example, they had a better understanding of the concept of perseverance, suggesting that our program is an effective methodology for teaching about important basic theme-concepts.

These two measures assessed performance on concepts that the program taught explicitly. The other posttest measures reflected two different degrees of transfer. "Near" transfer was considered to have been achieved when students were able to identify the "We should persevere" theme in the posttest perseverance story, because while the theme had been explicitly taught, the students had not been exposed to the story before the test. Instructed students scored significantly higher than the noninstructed students in identifying that familiar theme in the previously unencountered story. In order to make sure that students were not identifying the story as "perseverance" merely because so many of the instructional stories had exemplified that theme, we counted the number of times that students responded with a perseverance theme to the novel story (which had been presented first); only two of the 36 instructed students did so. This indicates that the appropriate theme identifications of the perseverance story were not simply due to a response bias.

Near transfer may also have been achieved in the generalization of the familiar theme to real-life situations. However, while the instructed students were better able to apply the theme "We should persevere...," i.e., to generate a story of their own that incorporated that theme, that result might have been due simply to exposure to such examples during the instruction. We therefore cannot be certain of the interpretation of this result.

The other two posttest measures of primary interest dealt with a novel story, whose theme had not come up during the instruction. We considered these as examples of "far" transfer. The instructed students were better able to identify the theme of the novel story than were the non-instructed students. Implications of this finding should be examined. First, the issue of far transfer itself should be considered. It is often said that such transfer is difficult to achieve, and that this is especially the case for LD students . Here we see evidence that students, including LD students, can gain, from what is actually a rather short intervention, enough general understanding to be able to identify a theme that was not touched on at all during the instruction. This performance surely warrants the label "far" transfer. Of course, it should be noted that the LD students who participated in this study had been judged sufficiently competent to be mainstreamed. In a task that did not require reading and writing, their performance was similar to that of the NDs in their classrooms. Both the nondisabled and the learning disabled students had strong enough expressive language ability to be able to offer clear theme statements.

Second, it should be kept in mind that prior to the instruction, the students had some awareness of the idea that one should consider other people's needs--our program did not attempt to teach theme-concepts. Rather, the instruction helped the students to structure and organize their story comprehension on a theme level, a more advanced level than is usually taught explicitly to learning-disabled (and perhaps other) students.

Performance on the Theme Application--Novel Story measure, however, was not affected by the instruction: Instructed students were not superior to non-instructed students in their ability to generate a story that incorporated the novel theme.

Story comprehension, which tested knowledge of story details, was the one posttest measure on which there were differences between the nondisabled and disabled students. On that measure, the nondisabled students' scores were higher than those of the learning disabled students, and, moreover, among the LDs, the instructed group scored higher than did the noninstructed group, while among the NDs, there was no difference between the two treatments. This finding was unexpected: the story comprehension measure, as well as the measure of story components (which showed no type-of-student differences), had been included in the posttest in order to demonstrate that performance on those measures, seen to be prerequisite to success on the theme measures, would be high in both the instructed and the control treatments, and not different in the two treatments. This would permit the conclusion that any differences found on theme comprehension could not be attributed to differences in comprehension on the plot level. But, while the means were in fact high across the board, there was a type-of-student main effect and an interaction.

After reflection, however, the outcome makes good sense. Indeed, knowledge of the important plot components is a necessary prerequisite to theme identification, as argued by Dyer (1983) and earlier in this paper. As expected, the performance of the LDs and the NDs on that measure did not differ, and across both conditions, was sufficiently high to warrant the conclusion that lack of plot level comprehension could not be the reason for any failure on the theme measures.

However, knowledge of story detain in itself is not a necessary prerequisite. Story grammar research has demonstrated that students who organize their recall around a story's important components are likely to recall more of the story details (Mandler & Johnson, 1977). What our results suggest is that learning disabled students who are instructed in a higher level of organization (theme) receive thereby a organizational schema that aids retention of lower-level story details. The nondisabled students did not show such an effect. For them, the themes instruction facilitated higher-level comprehension only (perhaps because of a ceiling effect).

STUDY 2

Introduction

The purpose of Study 2 was twofold: (1) to evaluate the effectiveness of the instructional program when compared with more traditional instruction similar to that typically provided in basal readers and (2) to evaluate the effectiveness of the instructional program with a lower functioning population.

The particular virtue of the structured and explicit instruction represented in our program is that it is effective for students who do not respond well to other types of instruction. The students who served as subjects in Study 2 were of that type. Although they fit the standard criteria for learning disability and were thus classified by the school district, they were in reality operating at a quite low level of functioning (see descriptive data presented below); this is a not atypical situation in many urban schools. The students had been placed in special education classes in which they received all their instruction; they were not mainstreamed. The instruction was thus conducted in classes of considerably smaller size, with only learning disabled students in attendance.

Method

Subjects. Subjects were 93 students from seventh and eighth grade special education classrooms in three junior high schools in Yonkers, a small city about 20 miles from New York City. The enrollment of the three schools was 33% white, 33% Hispanic, 33% Black, and 1% students of other ethnic origins. Eighty percent qualified for free or reduced rate lunches.

Twelve intact classrooms were used. All students in these classrooms had been certified as learning disabled by the Yonkers Board of Education, following criteria similar to those of New York City. The classrooms were randomly assigned to either the Themes Instruction treatment or the Basal Instruction treatment, with the restriction that the same number of classrooms in each school and each grade be assigned to each treatment. Table 4 presents descriptive data for each treatment condition. All students took the Reading Comprehension Subtest of the Metropolitan Achievement Test as part of the regular school testing program, within three months of the completion of the study. We were not allowed access to school records of individual intelligence tests, but we were given permission to administer four subtests of the Wechsler Intelligence Scale for Children--Revised, from which we calculated a prorated verbal IQ.

Design and Procedure. There were two treatment conditions, Themes Instruction and Traditional Instruction. A pretest/posttest design was used. The pretest and the posttest (and their scoring) were similar to those used in Study 1. The same procedure was followed as in Study 1, with the exception that there were twelve instructional sessions, spread out over four weeks. The 12 sessions included five sessions on the perseverance theme and seven focusing on a variety of other themes. An inservice session was held to familiarize the teachers with the instructional programs. In these sessions, we typically worked with a small group of two or three teachers who had been assigned to the same treatment group.

Themes Instruction. The Themes Instruction (ThI) program was planned for twelve rather than nine sessions. Given the more severe learning difficulties of the Study 2 students, it was felt that they would benefit from the additional practice. All three of the added lessons involved novel themes; thus five perseverance stories and seven stories with varied themes were presented. The added stories came from the same sources as did the other nine. The instruction differed from that of Study 1 in only one way: the progression of the transfer of responsibility from teacher to student was elongated to fit a twelve-lesson sequence. For example, the statement of the purpose of the lesson included an identification of the story theme through the first four lessons in Study 2, whereas this procedure was discontinued after the third lesson in Study 1. Similar adjustments were made in the transfer of responsibility from teacher to student with the schema questions, theme format prompts, and real-life questions.

Traditional Instruction (TrI). Students in the comparison group received instruction similar to that currently found in basal readers; this provided a more stringent test of the effectiveness of the experimental program than was provided in Study 1.

The lessons in the Traditional Instruction condition used the same twelve stories that were presented in the Themes Instruction condition. The instruction consisted of four parts: (1) pre-reading discussion, (2) vocabulary development, (3) story reading, and (4) post-reading questions. The instruction was derived from the basal teachers' manual, with modifications and additions made where necessary to conform to the structure just described. In this way, we developed a "generic" instruction. As in the Themes Instruction, the outlined lessons were presented to the teachers as general guidelines; the teachers were encouraged to tailor their instruction according to their own professional judgment.

(I) Pre-reading Discussion. Each lesson began with a pre-reading discussion. First, teachers read a short paragraph (three sentences at most) that told briefly what the story was about. Next, students were asked questions to help them to think of any previous experiences that they had with the story topic. For example, for the story Midas and the Golden Touch, the questions were: "Did you ever hear of anyone called Midas? What does it mean to call someone a Midas? What kind of story is this?"

(II) Vocabulary Development. A short (N = 5-11) list of words, along with their definitions, was presented on the board. Teacher and students together generated sentences that included the vocabulary items. (The words for Midas and the Golden Touch included treasure, warning, gently, excited, and ashamed.)

(III) Story Reading. The teacher then read the story aloud, to circumvent decoding difficulties, while students followed with their own copies. At various points, the teacher stopped to ask questions (these questions were the same ones used in the Themes Instruction).

(IV) Post-reading Questions. The teacher asked several (N = 4-9) questions about the story. These questions related both to factual details of the story and to inferences derived from it, and they provided the basis for further discussion of the story.

The Stories. In both the Themes Instruction and the Traditional Instruction conditions, the five stories with the perseverance theme-concept were presented in Sessions 2, 3, 5, 8, and 11. The three stories added to the program for Study 2 exemplified theme-concepts concerning responsibility, sincerity, and respect for others, all expressed in the theme format ("we should....") described above.

Classroom Observation. Each classroom was observed twice during the course of the instruction, to ensure fidelity to treatment. All teachers were judged to be operating within the general guidelines. The teachers in both instructional treatments followed the guidelines rather closely while still displaying a rather wide variety of teaching styles.

Results

Characteristics of the Subjects. Table 4 presents the mean age of the subjects as a function of instructional treatment, as well as their mean scores on IQ and reading tests. There was no significant difference in (1) mean age between the two treatment conditions, t(10)=.04; (2) mean WISC-R prorated verbal IQ score, t(10)=1.29; and (3) mean score on the WISC-R vocabulary subtest, t(10)=.18. The latter score is presented because the same measure was available on the subjects in Study 1. These IQ scores fall considerably below the typical criteria for learning disability. However, it is not unusual for public schools in large urban areas having a very diverse population to classify such low-scoring children as learning disabled.

Also presented are the mean scores on the Reading Comprehension Subtest of the Metropolitan Achievement Test; subjects in the two treatment conditions did not differ significantly, t(10)=.30.

Pretest. There were no significant differences on any of the pretest measures. A summary of these findings is presented in the Appendix. Means and standard deviations of the posttest scores as a function of treatment and type of student are presented in Table 5.

Posttest. Across all seven posttest measures, there was a significant difference between the themes-instructed and the traditional instructed groups, Hotelling $T^2 = 55.39$, $F(4,7) = 9.69$, $p<.01$. In order to determine which of the seven measures contributed to this difference, simple t-tests were performed. Because the comparisons were not independent, Bonferroni's inequality was used. Setting the overall alpha level at .05, given four measures, $p < .0125$ is necessary to reject the null hypothesis.

Concept of Theme. Responses were evaluated on a scale of 0-3. Students in the themes-instructed group scored significantly higher on this measure than did the students in the traditional-instructed group, t(10) = 4.37, p <.005.

The Perseverance Theme: Concept of Perseverance. Responses were scored on a scale of 0-2. None of the subjects in the Traditional Instruction group scored above 0. An exact probability test indicated that the two groups were significantly different, p <.001.

Theme Identification: Perseverance. There was a significant (and substantial) difference in the proportion of students who were able to provide acceptable theme statements for the posttest perseverance story, in favor of the themes instructed group, t (10) = 4.96, p <.001.

Theme Application: Perseverance. Although the mean proportion of acceptable responses on this measure given by the themes-instructed groups was higher than that of the traditional instructed groups, the difference was not significant, t(10) = 1.53.

The Novel Theme: Story Comprehension. Across both groups, performance on the six items that assessed comprehension of story details was high, indicating that the students had understood the story on the plot level and that performance on the other measures would not be affected by a lack of comprehension. The Themes-instructed groups scored significantly higher than the traditional-instructed, t(10) = 2.10, p <.05.

Story Components (Novel Theme). The three items that comprised this measure were main character identification, central event, and outcome of the story. Performance was high in both groups. There was no difference between the Themes-instructed and the traditional instructed groups, t(10) = 1.52.

Theme Identification (Novel Theme). Almost no students were able to provide an acceptable theme statement. The mean proportion in the themes-instructed group was .08 (S.D. = .09); in the traditional instructed group, M = .04 (S.D. = .06). This is not surprising, given the expressive language difficulties and other problems typically seen in learning disabled students. There were no differences between the instructional groups, t(10) = .74.

Theme Gist (Novel Theme). Another measure of the ability to identify the theme was based on a review of the student's entire protocol in order to arrive at an interpretation that was based on more of the data then the theme statement alone. This provided a more liberal scoring of theme identification. According to this measure, a substantial proportion of the students had some awareness of the theme; however, there was no difference as a function of instructional treatment, t(10) = .45.

Theme Application (Novel Theme). There was no significant difference between the two treatment groups, t(10) = .43.

Pretest vs. Posttest. A direct comparison between pretest and posttest was possible for only one measure, concept of theme. (Tables 5 and 6 present the mean scores on this measure as a function of treatment and test.) An analysis of variance with two factors, (a) treatment--themes-instructed vs. traditional instructed; and (b) test--pre vs. post, was performed on this measure. There was a significant main effect for treatment (themes-instructed higher), F(1,10) = 18.51, $p < .002$, $ms_{error} = .149$, no main effect for pretest vs. posttest, F(1,10) = 3.29, $p < .10$, $ms_{error} = .222$, and a significant interaction between the two variables, F(1,10) = 10.72, $p < .01$, $ms_{error} = .222$. This interaction indicated that only the themes-instructed group improved as a function of instruction, as expected.

Discussion

The results of Study 2 indicate the effectiveness of our instructional program for a severely learning-disabled population, and in comparison to a more traditional type of instruction. Students who received Themes Instruction demonstrated superior performance to students who received Traditional Instruction on posttest measures of (1) concept of theme; (2) concept of perseverance; and (3) identification of the perseverance theme in a story that they had not heard before. (Again, this last result was not due to a response bias, as determined by the fact that only three students responded with a perseverance theme to the novel story, which had been presented earlier in the posttest.) The first two of these three measures assessed content that the students had been explicitly taught; the third (Theme Identification) could be considered "near" transfer. However, there was no difference between the two instructional conditions in the proportion of acceptable applications of the perseverance theme, i.e., stories that they themselves generated, although the difference was in the expected direction.

With respect to the novel story, there was no difference between the treatment conditions on the measures that dealt with theme identification (including the more liberally scored theme gist) or theme application on a novel story. These results are not at all surprising. It is notoriously difficult to demonstrate "far" transfer in severely learning-disabled students (Brown, Campione, & Day, 1981).

The Themes Instructed students answered a significantly greater number of story comprehension (detail) questions correctly than did the Traditional

Instructed students. This suggests that instruction geared to achieving an overall abstract meaning of the story (the story theme) had, like other schema, an organizing effect, resulting in greater retention of detail information. In the case of this severely disabled population, then, instruction in theme facilitated lower-level comprehension in the same way that it had for mildly-handicapped learning disabled students in Study 1. Its facilitation of theme comprehension was limited to fewer measures than in Study 1.

General Discussion

Recent attempts to improve comprehension instruction have included relatively little focus on comprehension of overall meaning--a story's abstract theme--and the integration of that meaning with real-life experiences. The two studies presented here evaluated an instructional program designed to help both non-disabled and learning-disabled children learn about the concept of theme, identify themes in stories, and apply the themes to real life.

The results suggest that the Themes Instruction Program was successful in helping students to learn about the concept of theme and to identify theme in a "near" transfer situation (that is, to identify a theme that was instructed but that appears in a previously unencountered story). More Themes Instructed children were successful on both measures than were children who received no instruction or a traditional type of instruction similar to that often found in basal readers.

Moreover, the Themes Instruction Program was shown to be helpful across a range of populations: fifth and sixth grade non-disabled children, and two different types of learning-disabled children, fifth and sixth graders who are mildly handicapped (mainstreamed but attending resource room) and seventh and eighth graders who are more severely handicapped (attending separate special education classrooms).

The studies suggest, however, that applying a theme to real life, is a more difficult task. In the near transfer situation, the Themes Instruction Program was only somewhat successful in this regard. While instructed non-disabled and mildly handicapped learning-disabled students were significantly better at generating their own stories using the instructed theme than were students who received no instruction (Study 1), there was no difference on this measure between themes instructed and traditional instructed severely handicapped learning disabled students (Study 2). At the very least, this suggests that severely learning-disabled students need much more extensive practice than that which was provided in the Themes Instructional Program.

The studies also indicate that far transfer (identifying and applying a novel theme that was not included in the instruction) is an extremely difficult task. While the Themes Instruction was successful in helping the stronger students in Study 1 to identify the theme in a novel story, even these students were unable to apply that theme any better than were their control counterparts. Moreover, the severely handicapped learning-disabled students in Study 2 were no more successful than their traditional instructed peers on either measure.

In general, then, the success of our instructional program was influenced by both the severity of the learning disability and the familiarity of the materials on which the child was asked to perform. Not surprisingly, severely learning-disabled children were helped by the program only with materials on which they have already received some instruction, and even then they were able only to identify the theme and not to apply it to their own experiences. Non-disabled and mildly learning disabled children on the other hand, improved on measures involving the familiar theme as well as on identifying the theme of the novel story. In addition the learning-disabled students in both studies improved in recall of story detail.

The difficulties experienced by the more severely learning disabled students in application of theme and in far transfer raises the question of whether or not the instruction is helpful enough to this population to warrant its use. One important point to keep in mind is that, for the more severely disabled students, although the instruction was not effective for the most difficult tasks, it was in fact helpful in areas not specifically targeted by, but related to and prerequisite to, theme comprehension. Specifically, results suggest that for the more severely disabled population, the themes instruction (1) taught content, i.e., about the concept of perseverance (and perhaps about the other specific themes covered in the instruction, though they were not tested); and (2) improved lower-level comprehension. And in fact it also taught these students some aspects of theme comprehension, namely the concept of theme and the identification of an instructed theme in a previously-unheard story. In light of the unfortunate tendency to limit instruction in this population to low-level tasks, component-skill instruction, it is at least encouraging to note that these students do in fact respond to a more integrated approach.

In summary, the Themes Instruction program was effective in improving performance on higher-level comprehension tasks. Its effectiveness depended on the type of student, but even the most challenged students gained something in this regard. This finding suggests that explicit teaching of some of these heretofore neglected aspects of comprehension shows promise and that further instructional development along these lines is warranted.

Moreover, the results indicate that instruction geared to achieving an overall abstract meaning of a story had an organizing effect, in much the way that any schema is thought to, resulting in greater retention of detail information. This suggests that theme in narrative, though a more abstract concept, may perform a function similar to that of main idea in expository text (Williams, Taylor, & deCani, 1984). The facilitation of lower-level comprehension, however, was seen only with learning-disabled students (which may have been due to a ceiling effect in the nondisabled students' scores).

These studies were designed to evaluate a prototypic instructional program, with the expectation that if the outcome of this initial attempt at instruction were promising, as it was, further elaboration and refinement of the program would be justified--which would be followed by further program evaluation. They were not designed to answer theoretical questions. Differences in the comparison groups used in the two studies and other methodological considerations preclude the possibility of drawing firm conclusions on the issue of general theoretical interest that have been raised, such as the extent to which knowledge about theme transfers, the function of theme as an organizing schema, and the differences between nondisabled and learning disabled students (and between different populations of learning disabled students). Other studies must be designed specifically to get at these matters.

Table 1

Study 1: Characteristics of the Subjects, N.Y.C.

Instructional Treatment	N Groups	N Students	Age (yrs.) Mean (SD)	Vocabulary* Mean (SD)
Themes Instruction				
Learning Disabled	2	15	11.31 (.14)	9.20 (2.94)
Nondisabled	2	21	11.15 (.20)	10.36 (.96)
No Instruction				
Learning Disabled	2	16	11.17 (.11)	8.33 (1.33)
Nondisabled	2	17	11.06 (.13)	11.71 (1.51)

*Based on WISC-R Vocabulary Subtest, scaled scores (Mean = 10, SD = 3).

Table 2

Study 1: Pretest Performance: Mean and (S.D.), N.Y.C.

Measure	Learning Disabled Students		Nondisabled Students		
	Themes Instruction	No Instruction	Themes Instruction	No Instruction	Themes Instruction *vs.* No Instruction
Concept of *Theme* (scored 0-3, 3 high)	.59 (.50)	.34 (.32)	.69 (.50)	.89 (.30)	$F\ (1,4) < 1$ $ms_{error} = .32$
Story Comprehension (maximum score = 6)	4.99 (1.01)	5.34 (.71)	5.50 (.66)	5.00 (.15)	$F\ (1,4) < 1$ $ms_{error} = .33$
Story Components (maximum score = 3)	2.21 (.81)	2.13 (.63)	2.19 (.14)	2.60 (.27)	$F\ (1,4) < 1$ $ms_{error} = .16$
Theme Identification (proportion of acceptable responses)	.17 (.33)	.06 (.13)	.18 (.14)	.19 (.16)	$X^2(1) = .15$
Theme Application (proportion of acceptable responses)	.22 (.31)	.23 (.21)	.33 (.22)	.36 (.13)	$X^2(1) = .02$

Table 3

Study 1: Posttest Performance: Mean and (S.D.), N.Y.C.

	Learning Disabled Students		Nondisabled Students	
	Themes Instruction	No Instruction	Themes Instruction	No Instruction
Measure:				
Concept of Theme* (scored 0-3, 3 high)	1.53 (.89)	1.13 (.41)	1.89 (.52)	.89 (.58)
Perseverance Story				
Concept of Perseverance* (scored 0-2, 2 high)	1.53 (.58)	.06 (.13)	1.33 (.09)	.40 (.43)
Theme Identification* (proportion of acceptable responses)	.70 (.28)	.38 (.26)	.76 (.11)	.68 (.29)
Theme Application* (proportion of acceptable responses)	.90 (.20)	.60 (.14)	.86 (.10)	.47 (.35)
Novel-Theme Story				
Story Comprehension (maximum score = 6)	4.92 (.63)	4.27 (.50)	4.88 (.72)	5.12 (.30)
Story Components (maximum score = 3)	2.67 (.39)	2.29 (.51)	2.70 (.26)	2.98 (.10)
Theme Identification* (proportion of acceptable responses)	.63 (.34)	.36 (.44)	.54 (.26)	.23 (.18)
Theme Application (proportion of acceptable responses)	.43 (.16)	.35 (.17)	.38 (.35)	.33 (.22)

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*The difference between Themes Instruction and No Instruction was significant.

Table 4

Study 2: Characteristics of the Subjects, Yonkers

Instructional Treatment	N Groups	N Students	Age (yrs.) Mean (SD)	IQ* Mean (SD)	Vocabulary** Mean (SD)	Reading Level*** Mean	(SD)	Grade Equivalent
Themes	6	50	14.2 (.86)	78.5 (3.3)	5.25 (.63)	612.9	(15.0)	4-1
Traditional	6	43	14.1 (.73)	75.8 (3.8)	5.36 (.63)	610.5	(12.3)	4-2

*This is a prorated Verbal IQ, based on four subtests of the WISC-R (Information, Similarities, Vocabulary, and Digit Span).

**This is the same Vocabulary Subtest used in Study 1 (and part of the prorated Verbal IQ).

***Metropolitan Achievement Test, Reading Comprehension Subtest, scaled scores.

Table 5

Study 2: Pretest Performance: Mean and (S.D.), Yonkers

	Instructional Treatment		
Measure:	Themes	Traditional	
Concept of Theme (scored 0-3, 3 high)	.63 (.27)	.59 (.36)	t (10) = .25
Story Comprehension (maximum score = 5)	2.82 (.38)	2.80 (.58)	t (10) = .07
Theme Identification (proportion of acceptable responses)	.19 (.20)	.19 (.24)	$X^2_{(1)} = .11$
Theme Application (proportion of acceptable responses)	.17 (.12)	.19 (.23)	$X^2_{(1)} = .01$

Table 6

Study 2: Posttest Performance: Mean and (S.D.), Yonkers

	Instructional Treatment	
	Themes	Traditional
Measure:		
Concept of Theme* (scored 0-3, 3 high)	1.61 (.68)	.31 (.27)
Perseverance Story		
Concept of Perseverance* (scored 0-2, 2 high)	.72 (.43)	0
Theme Identification* (proportion of acceptable responses)	.59 (.12)	.17 (.17)
Theme Application (proportion of acceptable responses)	.68 (.28)	.49 (.16)
Novel-Theme Story		
Story Comprehension* (maximum score = 6)	4.69 (.45)	4.17 (.40)
Story Components (maximum score = 3)	2.52 (.38)	2.16 (.43)
Theme Identification (proportion of acceptable responses)	.08 (.09)	.04 (.06)
Theme Gist (proportion of acceptable responses)	.65 (.16)	.59 (.29)
Theme Application (proportion of acceptable responses)	.31 (.09)	.27 (.20)

*The difference between Themes Instruction and Traditional Instruction was significant.

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Appendix 1

A Lesson Outline

I. Lesson Purpose and Pre-reading Discussion

II. Reading the Story: "Kate Shelly and the Midnight Limited"

Synopsis of the Story:

One night in 1881, a young girl named Kate Shelly saw a railroad bridge collapse during a heavy storm. She knew that a passenger train, The Midnight Limited, was scheduled to cross the bridge and that if she did not get to the station with a warning, everyone aboard the train would be killed. Kate ran over a mile through the darkness. Despite extremely dangerous conditions, she pushed on until she reached the station in time to save the train.

Interposed Questions:

"What do you think will happen next?"
"Do you think Kate was brave? Why?"

III. Organizing Questions

Who is the main character? Kate Shelly
What did she do? She ran more than a mile in dangerous conditions during a terrible storm to give a warning about a collapsed railroad bridge; she persevered.
What happened? She reached the station in time to save the lives of the people on the train.
Was this good or bad? Good.
Why was it good? It was good that Kate persevered because she was able to save people's lives.

IV. Statement of the Theme in Standard Format

Kate should have persevered.
We should persevere.

V. Generalization to Real-Life Experiences

Specific Questions:

How might this theme apply to parents?
Could it apply to your parents when they get a hard job to do at work?

Appendix 2

EXAMPLES OF RESPONSES AND THEIR SCORES (STUDY 1: N.Y.C.)

Concept of Theme: "What is a theme?"	Score
What it's really about--sometimes it's like a lesson.	3
Something that tells you about the story.	2
It's like a part of the story--the main part of the story.	1
Main character--is it good or bad, and how is it good or bad.	0

Posttest Perseverance Story:

Iris was 14 years old. She had a beautiful voice and she loved singing and writing music. She wanted more than anything else to go to a special high school for talented teenagers where she could learn to be a professional singer and songwriter.

Iris knew that she needed to study with an excellent piano teacher if she wanted to pass the special high school audition, but her mother could not afford it. So Iris earned money after school walking her neighbor's dogs. On Saturdays she worked, too, babysitting and doing odd jobs. It was tiring, but she made enough money to pay for her piano lessons. She practiced piano two hours every day. Good grades are required in the special high school, so Iris stayed up late to study and do her homework.

Last week, Iris had her audition at the special high school. Yesterday, the director notified her that she had been accepted.

Concept of Perseverance: "What does perseverance mean?"	Score
To keep on going--keep trying--no matter what.	2
Try your best.	1
It means to check everything out--see what's going on.	0

Theme Identification: "What is a theme or a lesson of this story?"

Acceptable

Even if people say 'no way," or 'can't,' there's still a possibility if you work hard and use your brain.

That you should never give up. You should work hard; do your best; and work up to your potential.

Unacceptable

The girl was talented, and she went to a school that she could do.

She wanted to go to a nice college or high school to learn how to be a better singer and song writer.

Theme Application: "Can you give me an example of when it is important to persevere in life?"

Acceptable

There's a family. One of the people gets sick. The father has to go all across the city to get medicine for the child. It took days, but he made it and sent the medicine back. And they lived happily ever after.

You're a rescue worker, and there's three hundred pounds of rocks buried on a bunch of people. You really have to persevere because the quicker you get them out, the better chance they have.

Unacceptable

When your parents can't afford something, and you really need it.

My family is important.

Posttest Novel Story

Synopsis:

A young man named Gerasim had left his job and could not find a new one. He was cold and hungry. He desperately wanted a job. He met an old friend who offered him a job and a place to stay. Gerasim was overjoyed, and accepted the job gratefully. When he went the next day to start his new job, he discovered that he was replacing two elderly workers who were being thrown out on the street because Gerasim was taking their job. Gerasim decided to refuse the job, and felt much the better for it.

Comprehension Questions (and acceptable answers):

1. Why was Gerasim out of work? (He quit his old job.)
2. In addition to a job, what did the master offer Gerasim? (a room)
3. Who was Gerasim going to replace? (two older servants)
4. How did Gerasim find out about the old people's problem? (He snuck underneath their window and listened to their conversation.)
5. What was the master going to do with the old people when he hired Gerasim? (fire them)
6. What did Gerasim think about when he found the old people crying? (his parents)

Story Component Questions (and acceptable answers):

1. Who was the main character of the story? (Gerasim)
2. What did he do? (He was trying to find a job with the help of a friend.)
3. What happened? (He refused a job he was offered, because if he took it, two elderly people would be out of work.)

Theme Identification: "If you were going to use the story you just heard to teach a lesson to someone, what would it be?"

Acceptable

You should care for others.

If someone offers you something, and you think it's wrong to take it--if it's going to hurt someone else's feelings--do the right thing.

Unacceptable

Try to look for a job on your own. You'd be better off doing things for yourself than by people doing things for you.

Never to leave your own job. It's better to leave the job to old people.

Theme Application: "Can you give me an example of a time that this lesson came up, or could come up in real life?"

Acceptable

You could be rich, and you wanted to buy a house, and a couple of people who are poor are living there; and they can't pay their taxes. You don't have to take it (the house).

A person that's very good at sports, but there's another person that's not as good as him, and the other person needs to be on a team more (cause the person that's better is on a team already), so the person that's on a team already let's the other person get on the team.

Unacceptable

If there was a real king, and the servant thought he might hurt the old people, then he might think it over and not go back.

Someone that's not exactly a steady worker--it's probably not going to come up anyways--he shouldn't take a job with someone he hasn't met, cause that person might make a rule that he doesn't like.

EXAMPLES OF RESPONSES AND THEIR SCORES (STUDY 2: YONKERS)

Concept of Theme: "What is a theme?"	Score
You learn something from it.	3
It tells about the story.	2
Something from the story.	1
Don't know.	0

The Perseverance Story

Concept of Perseverance: "What does "perseverance" mean?"	
To never stop; keep on giving your best.	2
To try hard.	1
Don't know.	0

Theme Identification: "What is a theme or a lesson of this story?"

Acceptable

Persevere; I like that word.

Keep on trying.

Unacceptable

When you're 14 years old--she wanted to be a singer. Her mother said she couldn't.

She didn't have money. She tried to get money, walking dogs and babysitting.

Theme Application: "Can you give me an example of when it is important to persevere in life?"

Acceptable

There's a kid in my class. He was failing. Now he's going up in his grades. He's been studying hard.

Like if you're not good in math, you should try to pass it, even if you think you're not good.

Unacceptable

When somebody's robbing someone else's things--breaking into things--to let them know not to steal, you can call the police.

If the old guy sees the young guy who's working and wants to change, the old guy will quit.

Posttest Novel Story

Comprehension Questions: See Study 1.

Story Component Questions: See Study 1.

Theme Identification: "If you were going to use the story you just heard to teach a lesson to someone, what would that lesson be?"

Acceptable

Like don't take advantage or hurt someone for gain.

Do unto others as you would have them do unto you.

Unacceptable

To try to help people.

To try to find your own job; don't grub off everyone else.

Theme Application: "Can you give me an example of a time that this lesson came up, or could come up in real life?"

Acceptable

A little girl who wanted to play jump rope with older girls. They didn't want her to play--too young. One of the older girls said, "I won't play if you don't let her play."

Two boys working--needed the job--caddy mates. They're no good. They want to keep it. I just come in and take their place. (?) I wouldn't do that. They just started. They need to learn more, even though I needed the job.

Unacceptable

This kid wanted a job. His friend, he was working at a store. He asked the boss to give him a job doing what he's doing.

If older lady needs help crossing the street--you could help.

THE MEANING OF A PHONICS BASE
FOR READING INSTRUCTION

Joanna P. Williams
Teachers College, Columbia University

1990

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The Meaning Of A Phonics Base For Reading Instruction

Joanna P. Williams
Teachers College, Columbia University

Learning to read is a challenging task, and unfortunately, a substantial proportion of children fail to meet the challenge; they grow up illiterate or semi-literate. A recent study ranks the United States 49th in literacy out of 159 members of the United Nations. Another study estimates that 20 percent of American adults cannot read want ads or job applications, and most of these people have had at least several years of schooling. There is a whole new educational growth industry that deals with these ABRs–adult basic readers–who read at the fourth grade level or below. And the worst part about it is that it looks as if many of the children who are starting school right now will also end up as ABRs.

Over the years, there have been many hypotheses about why children have such difficulty with reading. Early in the century, many reading difficulties were explained in terms of emotional problems: You can't read if you're distracted, anxious, or hostile. Psychoanalytic or other kinds of counseling were seen as appropriate remediation techniques. But we learned that kids can be heavily counseled and become very well adjusted, but they still won't learn to read unless they're *taught* to read.

In the 1950s and 1960s, reading difficulties were seen primarily as the result of visual-perceptual problems. For example, one common disability that was frequently discussed was the reversal in the orientation of single letters (b-d-p-q) or the order of letter strings (read *saw* as *was*); these reversals were interpreted as having been caused by confusions in visual perception. A great deal of research was done to show that kids with visual-perceptual problems of many varieties also had trouble reading. Although there was much hope that remediation of visual-perception deficits might work to improve reading, the instructional programs based on this idea were not, in fact, effective.

It took a long time for the field to recognize and acknowledge the failure of the reading readiness programs that were based on the model of remediating visual-perceptual deficits. In the meantime, children spent lots of instructional time matching and differentiating visual forms that were considerably more complex than the letters of the alphabet and that had no relationship to letters and therefore no transfer potential. Yes, it is obvious that reading involves visual perception–if you close your eyes, you can't read–but just as obviously, this visual-perceptual model was a bandwagon to get on, just like the earlier one that focused on emotional factors.

Today we know better. Or do we? For the last ten or fifteen years, we have stressed the fact that reading is language, after all. Our research has indicated that a disproportionate amount of reading difficulty arises among children who have general problems with language. Investigators have brought a wealth of evidence to bear on this thesis. An overall conclusion is that poor readers differ from good readers in their ability to process linguistic information–linguistic information of all kinds–phonological, morphological, syntactic, semantic, pragmatic. Every time linguists turn their attention to another part of the language system, someone is right there to show that poor readers have problems in that area, too. In fact, today it is language disability that is said to account even for confusions between "b" and "d": this difficulty may not be a result of visual confusion; rather, the child may have verbal processing deficits such that he cannot attach the appropriate verbal label to each of the printed letters (Vellutino 1979). The implication of this model is that reading acquisition will be enhanced by a great deal of language instruction of a variety of types.

But a funny thing has happened to the notion that language is the critical factor in reading disabilities. The hypothesis has been refined. We have found that one language system–phonology–is particularly important. It's not really clear about the other language systems, that is, in terms of what will make a real difference in reading instruction. And this isn't very surprising, either, because the work in phonology has helped us to zero in again on the heart of reading: decoding. We learned that emotional adjustment or visual-perceptual skills cannot serve as a panacea for reading difficulties–although, of course, children have to be calm and positive and not anxious, and they also have to learn letter differentiation and identification and writing, because that's part of the reading task. Now we are beginning to realize that a general immersion in language will not teach people to read: we have to teach reading.

An indication of this is that people are now beginning to point out the differences between spoken language and written language, rather than focusing on the similarities (e.g., Liberman 1990). Reading and language are not synonymous. There are profound differences between

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oral language and written language. Spoken language is possessed by all human beings, and it developed very much earlier in the evolution of man. In fact, the use of spoken language may be the hallmark of *homo sapiens*. It is part of normal human development to learn to talk. Given an environment that contains people who speak–a normal human environment–a child will naturally learn to talk without formal instruction.

In contrast, writing systems are far from universal, and writing itself is a fairly recent invention in the history of man. Moreover, as Nelson Francis (1970) has pointed out, it is possible–and it happens in many societies–for people to live in daily contact with written samples of their native language without ever learning to read and write. In order to read and write, you have to be taught. The expectation that, since learning to talk is easy, learning to read should also be easy does not seem so reasonable at all when you think about it.

Let's look for a moment at writing systems and what being able to read them entails. Picture writing, in which the graphic forms directly represented meaning, was the earliest type of writing. Contemporary languages that incorporate the same meaning-based mapping of units of a writing system onto language units use "pictures," or ideographs, that relate to meaning only in a highly abstracted form. The Chinese language is the meaning-based orthography that is most widespread today. In point of fact, Chinese is extremely complex. Its characters include ideographs, pictographs, and phonetic compounds. A portion of each written form corresponds directly to meaning, however, and the task of learning to read involves associating written forms with word meanings (Perfetti 1985).

In contrast, there is another basic type of writing system in which the correspondences are between graphic units and units of speech, not meaning. Japanese, for example, uses a syllabary in which the written symbols are associated with syllables. (Japanese also contains many ideographs.) English is an alphabetic system; its written symbols are associated with phonemes. Languages that are based on the alphabetic principle are very productive, because only a few symbols (letters), used in many combinations, are necessary to represent the entire language.

The invention of the alphabet, presumed to have occurred only once in the history of mankind, was based on the discovery that spoken language is in fact made up of very small sound units, called phonemes, that are combined and recombined into words. This discovery, a major intellectual advance for the world, must have been exceedingly difficult because of the abstract nature of the phoneme (Perfetti 1985). That is, many phonemes (consonants) vary as a function of context: the *d* in *dime* is not the same as the *d* in *dome*, for example. The phoneme "d" is thus an abstraction.

There is another feature of English orthography that should be noted. Unlike some other alphabetic languages such as Italian and Finnish, in which there is a simple one-to-one mapping of letters to sounds, the orthography of English is irregular. That is, the 26 letters of the alphabet, singly and in combination, map on to the language's 40-odd phonemes with considerable complexity. Some letters and letter-combinations represent more than one phoneme (church, charisma, Cheryl), and some individual phonemes correspond to more than one letter or letter cluster. Moreover, the size of the relevant written unit varies (so vs. although).

What is it about reading that causes so many problems? One answer to this question is that reading requires a kind of analysis of language that is different from anything that the beginning reader has previously had to do. And, moreover, the demands of the reading task are such that certain types of instruction are more effective than others. What I want to do in this paper is to review the evidence in favor of providing a strong basis in phonics in beginning reading instruction. Phonics training does not represent reading instruction in its entirety, of course, but it should occupy an important place in the curriculum.

Reading Instruction Then and Now

A brief look at the history of instruction in reading over the last century suggests that the important issues have not changed very much. One central issue has been the role of phonics instruction, which is generally thought to include teaching content (letter-sound correspondences) and skills (segmentation and blending). Until the 1920s, most beginning instruction focused on phonics. At about that time, a new method, called whole-word instruction, was developed, in light of widespread dissatisfaction with the earlier approach. This method, as its name implies, emphasized the word as the basic unit of analysis, and instruction focused on the correspondences between written word and spoken word, not between letter and phoneme. Phonics training was relegated to a very subordinate position in the instructional programs, if, in fact, any phonics was taught at all.

The whole-word method remained the preeminent instructional method in this country for many years, until the 1960s. But this method, too, came to be seen as unsatisfactory. The move away from whole-word instruction was sparked by Rudolf Flesch's best-seller, *Why Johnny Can't Read*, published in 1955. In it, Flesch called for a return to "old fashioned" phonics instruction.

New methods, based on proposals by linguists such as Bloomfield and Fries, were introduced. These methods focused on word patterns and word families and were in many ways similar to the earlier phonics instruction; but they were considerably more systematic in presentation. These methods, however, did reject, for the most part, the traditional direct, explicit approach in which letter-sound correspondences were learned individually and then were blended into words. They recommended analytic phonics–the child should induce the correspondence from pronounceable letter combinations. It was considered bad business to pronounce a consonant alone, because in truth–that is, according to linguistic analysis—you can't actually do so. You have to add a schwa. For the next decade or so, a variety of new approaches appeared, and schools of education often preached eclecticism in instructional methods. During this period, the place of phonics in the curriculum was still at issue.

Over the last few years the mainstream has been shifting back toward a reliance on phonics. Many new instructional programs, including the basal readers previously committed to whole-word instruction, have given decoding a more important place in the mainstream curriculum. Some programs, though not many, fully endorse the view that decoding is fundamental. Others merely pay lip service to the idea that decoding is important; the attention actually given to decoding instruction and appropriate materials is minimal. These programs focus on only a small proportion of phonics relationships, and their phonics instruction is tacked on, unrelated to the rest of the lesson, so that there is little practice applying what they've learned about phonics in reading meaningful text.

Part of this recent movement toward phonics instruction comes from the recent government reports that have given credence to this point of view, such as the National Institute of Education's *Becoming a Nation of Readers* (1984). But clearly the field is still sharply split. Some experts believe that instruction in decoding and phonics is the wrong approach for beginning readers. They propose that since getting meaning from the printed page is the reader's main task, instruction must be oriented around bridging the gap between competency in oral language and in written language. They propose instruction that provides the child with a great deal of language activity, including speaking and listening as well as reading and writing, and high-interest reading material, including the use of the child's own language as the source of texts to be read (language experience), shared reading and lots of discussion about topics of interest to the children. Such methods, of course, are consonant with the "whole language" philosophy. Phonology, syntax, and semantics are all intertwined, and the appropriate unit of instruction is not the letter, or even the word; it is the text.

The above discussion pertains to mainstream educatio
that is, instruction that addresses the needs of the majori
of beginning readers. The situation in special education
different. Here, over the last few years, decoding v
phonics has clearly become the instructional model
choice (Williams 1987). Instructional programs aboun
most of which have been inspired by the early Orto
Gillingham Program (Orton 1966). These programs tea
phonics directly and explicitly in a systematic, step-b
step manner. A multisensory approach is used. There is
great deal of practice and review, and only a sma
amount of material is presented at any one time in ord
to promote mastery learning. Progress of the students
monitored closely. Studies of effective instructi
(Rosenshine and Stevens 1984) suggest that these featu
are characteristic of good instruction in general (whi
unfortunately, are too often honored in the breach).

The Evidence in Favor of Phonics

Chall's landmark book *Learning to Read: The Gr*
Debate (1967) reviewed the immense amount of data
had accumulated on the question of whether phon
should or should not be taught. Chall concluded that ea
emphasis on decoding via phonics led to hig
achievement in word recognition and in spelli
Moreover, she indicated that the whole-word appro
showed no superiority on any criterion whatsoever.
should be noted here that in the 1960s, the basal rea
that provide the basis for so much of the nation's rea
instruction were for the most part whole wor
emphasis and were contrasted with phonics-orie
programs.)

Since that 1967 review, many more studies, some
large in scope, have been conducted. The conclusions
have been reached are similar to those of Chall. In
such study, Guthrie, Martuza, and Seifert (1
reanalyzed the results of the large-scale compariso
reading methods funded by the U.S. Office of Educ
in the 1960s, the so-called "First-Grade Studies" (
and Dykstra 1967). Guthrie, Martuza, and Seifert f
that children performed better on word recogniti
those programs that were skill-oriented, suc
linguistics methods or methods combining phonic
linguistics, than in basal reading programs. In add
programs that combined a phonics program with a
method were superior to the traditional basal appro
Another large-scale study, the nationwide Fo
Through Planned Variation experiment conducted
1970s, assessed a variety of models for educ
disadvantaged children. The instructional models
classified into these categories: basic-skill-ori
cognitive conceptual, and child-centered. Stebbins

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(1977) found that the basic skills models led to better performance than did the other two models. Within the basic skills models, the Direct Instructional Model of the University of Oregon appeared to be the most effective at the first and second grade levels. What happened when the word got out? Did everyone switch, thankful that there was now an answer to the perennial question? No; another evaluation was commissioned (House et al. 1978), which found for the other side!

What more recent evidence is there that decoding instruction really is advantageous? Empirical work on this question continues unabated, and there is new evidence that corroborates the old. One type of study that has become more popular in recent years consists of nation-wide evaluations of children's performance on reading achievement tests. Unfortunately, the interpretation of such studies is not as straight-forward as would be desirable. The National Assessment of Educational Progress currently tests reading achievement across the country every five years. From 1970 to 1980, there was an increase in the scores of 9-year-olds, a smaller increase for 13-year-olds, and a decrease for 17-year-olds. According to Chall (1986), these trends are the result of the more challenging beginning reading programs that were first seen in the late 1960s, programs that included a greater emphasis on phonics. NAEP's own interpretation of these data, however, asserts that the 17-year-olds' scores in comprehension, especially inferential comprehension, went down because the students had been exposed to too much decoding in the early grades.

The 1985 National Assessment data indicated that the performance of 9-year-olds has tapered off somewhat (National Assessment of Educational Progress 1989). Chall has suggested that this is attributable to the recent emphasis on comprehension in the early grades and the consequent neglect of decoding. Such surveys, of course, provide only correlational evidence and therefore do not demonstrate causality, but still, data of this kind provide an important basis for evaluation.

Another type of study addresses the basic questions in terms of laboratory analogs. Brendan Byrne (e.g., Byrne and Fielding-Barnsley 1989) has done experiments that simulate the beginning reading process. Byrne taught preliterate preschool children word-picture pairs and found that they learned the pairs by forming associations between the spoken word as a whole and "some aspect" of the print sequence; they did not use an analytic procedure in which they identified and associated phonemes and letters. Byrne also demonstrated that this failure to discover letter-phoneme links was not due to a general deficit in analytic ability. He concluded that this nonanalytic acquisition procedure is "natural" and that most children will not abandon it unless they are given direct instruction in phonemic segmentation and letter-sound correspondences. Unlike earlier investigators who valued natural acquisition procedures, however, Byrne argues that in order to become proficient readers, children must abandon these natural procedures; and to do this, they must learn phonics.

A third approach uses psychological theory to buttress or refute the claims of reading specialists. For example, one of the most persuasive arguments against teaching phonics is that skilled readers could not possibly use phonics because they recognize words so very rapidly. One of the major relevant advances in experimental psychology has come about primarily as a result of technological advances in the study of eye movements. It has been found that proficient readers do recognize a word as a unit; they do have immediate visual access without phonological recording. If this is so, some experts argue, why bother to teach beginning readers something that they will not need later? A traditional but somewhat weak answer has been that knowledge of phonics is always necessary for reading unfamiliar words, like proper names in Russian novels, even if recognition of familiar words is in fact accomplished through some other, different process that does not depend on phonics.

Recently, however, the answer has changed, and an explanation in terms of information-processing is now offered. Yes, there is good empirical evidence that proficient readers can and often (not always) do recognize a printed word by direct visual processing (Seidenberg, Walters, and Barnes 1984). But, it is claimed, this purely visual word recognition, unmediated by any phonological processing, is in fact enhanced by giving phonics training to beginning readers. According to Jorm and Share (1983), a child who has knowledge of phonics can decode an unfamiliar word. As he or she sounds out the word, its visual pattern becomes more familiar. Repetition of this decoding activity on that particular word leads to direct visual access of it. The child develops an orthographic image. That is, he or she can recognize the word immediately, without sounding it out. If, however, another strategy besides decoding is used–for example, if the child identifies only the first letter and guesses the word from that and from context, he or she will not be paying sufficient attention to the visual features of the word (the letters) and thus will not develop the ability to recognize it directly. Moreover, decoding also leads to transfer. Because of the fact that the same spelling patterns occur as parts of many different words, decoding practice on one word may enhance recognition of similar words.

Gough and Hillinger (1980) made a similar argument emphasizing that whatever strategies a skilled reader actually uses in word recognition, early training in

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decoding will help to enhance those strategies. Maclean (1988) has called this a "paradox of phonics," i.e., that "it is useful to teach beginning readers a skill for which they will have little need as competent readers" (p. 515).

Program Comparisons

In 1989, Stahl and Miller published a review of about 50 studies that compared the effects on beginning reading achievement of whole language and language experience approaches, on the one hand, and basal reader approaches, on the other. (Note that the position of the basal readers has changed; now they are contrasted with whole language.) Overall, the two types of instruction were found to be approximately equal. Looking more closely, Stahl and Miller found that whole language may be more effective in kindergarten and less so in first grade. This makes good sense, since one of the emphases of whole language is on teaching the functional aspects of reading, and these insights represent important readiness and early reading goals. But at a later point, children need focused attention on phonics in order to master decoding. Stahl and Miller also found that recent studies showed stronger trends toward basal approaches than did earlier ones; this may well reflect the recent gradual shift in basals toward the inclusion of more phonics instruction.

Finally, whole language approaches did not come out as well when the students were disadvantaged and of lower socioeconomic status. This confirms all of the evidence from the field of special education, that it is the slower children who are most in need of systematic phonics instruction. It is also important to note that these effects are demonstrated by "naturalistic" methods of assessment as well as the more traditional and typical test measures.

We must remember that basals, though they have been getting more phonics-oriented over the last few years, are, as a group, not optimal phonics programs. Many, for example, do not coordinate their phonics lessons with the text that is offered, so that children do not get much systematic practice in applying the phonics knowledge they have been taught. Since we know the importance of overlearning in the development of automaticity, this may seriously compromise the phonics training that is being offered. If Stahl and Miller had looked only at basals having serious phonics components, they might have shown even greater difference between basals and whole language programs.

Still, overall, the evidence seems clear. One can reasonably claim that none of the evidence is perfect, but on the other hand, there is no real data on the other side; either phonics/decoding-based programs come out ahead or they don't. There is no body of evidence that shows that instruction that eliminates phonics is superior. To make such an argument, one must resort to arguing on the basis of criteria that we as yet cannot assess, like the ephemeral "love of reading"–as if, once you learn phonics, you are bound to dislike reading forever.

These theoretical ideas and research findings suggest a variety of instructional techniques. For example, if we accept the notion that skilled word recognition is accomplished through direct visual recognition, an obvious implication is that children should be given practice on reading the same material over and over again. This repeated readings technique, using continuous text, has indeed been shown to lead to improved speed and accuracy in reading (Samuels 1985). Interestingly, the use of this method was prompted by other considerations. It has been hypothesized (LaBerge Samuels 1974; Perfetti 1985) that if a reader must expend a great deal of effort on word recognition, then there will be a reduction in the amount of processing capacity available for comprehension. Training automaticity in word recognition thus becomes very important.

It should be noted that solid evidence that this sort of training promotes comprehension has not often been found, although Roth and Beck (1987) found that an eight-month long, microcomputer-based automaticity program did lead to some improvement in comprehension—only at the sentence, not the text, level, and only for low-ability, not high-ability, fourth-graders.

Speed of naming unrelated words (Perfetti, Finger, and Hogoboam 1978; Stanovich 1981) and of single letters (Stanovich 1981; Blachman 1984) is correlated with reading achievement in the early grades. In past years, practice on those tasks through flash-card drills has often been incorporated into instruction, although it is not currently recommended. One of the implications of the recent research that might be worth evaluating is that such drill is valuable, in that it presumably would provide more focused direct-visual-access practice than does working with continuous text, which allows use of context and other cues.

There are other implications for instruction that might be drawn from this point of view: for example, that nonsense syllables should not be used in decoding instruction because there is no value in developing immediate recognition of them. A second thought, however, suggests that many nonsense syllables represent common spelling patterns and that, for the acquisition of proficiency in reading long, multisyllabic words, decoding practice using nonsense syllables would indeed be of value, especially practice on those that have a high frequency of occurrence within words.

The Development of Phonemic Skills

Recently, there have been two active areas of research which help document the centrality of phonics and decoding in reading and which indicate important techniques for instruction. They both relate to phonological structure.

First, sparked by recommendations by Elkonin (1963) and Zhurova (1963) that phonemic analysis training should precede reading instruction, researchers began to investigate this topic extensively. Over the past several years, the most important advance in our understanding of the decoding process and of effective instructional strategies has come from the study of phonemic analysis.

Proficiency in the analysis of spoken language at both the syllable and the phoneme level shows a clear developmental progression (Bruce 1964) and, furthermore, is related to reading (Calfee, Lindamood, and Lindamood 1973). Liberman et al. (1974) asked children to tap out the number of speech segments contained in one- to three-syllable words. Performance improved from preschool to first grade and was better on syllable than on phoneme segmentation. This greater difficulty at the phoneme level (Treiman and Baron 1981) is attributed to the abstract nature of the phoneme.

Liberman et al. (1974) also found that first-graders' scores on the segmentation task were related to their reading achievement in the second grade. Rosner and Simon (1971) found significant correlations between segmentation ability and scores on the language arts subtests of the Stanford Achievement Test. Two studies (Fox and Routh 1976; Goldstein 1976) showed that 4-year-olds who were relatively good at phonemic analysis were more responsive to reading instruction than those who were poor at phoneme analysis.

The results of these correlational studies encouraged people to undertake training studies. There have been several projects devoted to the development of instructional programs that teach phonemic skills. Among the earliest was a program developed by Rosner (1971) that focused on the skills of adding, omitting, substituting, and rearranging phonemes. After several months of training, 4- and 5-year-olds improved in their ability to handle initial phonemes in words. In another study, Rosner (1974) gave 14 weeks of training to nonreading first-graders; these children outperformed a nontrained control group on words that had been used in the training and also on transfer words.

Some studies have incorporated phonemic training into comprehensive decoding programs. Wallach and Wallach (1976), for example, designed a beginning reading program to be used in a one-to-one tutorial setting. Lo
readiness first-graders who received this progr
performed significantly better than control children
several reading measures. Williams (1980) develope
decoding program for learning-disabled children to
used as a supplement to their regular classro
instruction. The program taught both phoneme analy
and phoneme blending explicitly. Children between
ages of seven and twelve improved in phoneme skills
in decoding skills after using the program. In addition,
training led to significant transfer in decoding unlear
material (novel trigrams, both familiar words
nonsense syllables).

These studies incorporated phonological skill train
into decoding programs. Recently, studies have attem
to isolate the effects of phonemic skill training per
Bradley and Bryant (1985), working with individ
children between the ages of five and seven, showed
training in categorizing words according to phonemes
to higher reading scores than did training in sema
categorization, and, in addition, that phoneme trai
that included alphabet letters was superior to s
training without alphabet letters. (This latter fin
supports the findings of Hohn and Ehri [1983], alth
Marsh and Mineo [1977] have reported data that sug
that a completely auditory-only approach is superior.)

Ball and Blachman (1988) evaluated the effects of s
weeks of phoneme segmentation training given to gr
of kindergarten children in a very low SES school in
Haven, Connecticut. The children who received
training improved more in reading than did a group
received the same instruction in letter names and so
along with additional language activities, but no pho
segmentation training. This study showed not only
phoneme segmentation training has an impact on re
skill (as measured by the Woodcock Word Identific
Subtest and reading performance on a list of phonet
regular words) but also that phonemic segment
training had a significantly greater impact tha
training in letter-sound correspondence wi
segmentation training.

An eight month long training program featuring a v
of phonemic games and exercises was given to 6
olds in Danish kindergartens before they receive
reading instruction (Lundberg, Frost, and Petersen
In line with the findings of other studies, this progr
to greater proficiency in tasks requiring pho
manipulation. In addition, this study also demons
that the training effect was selective, i.e., it did not
linguistic skills such as vocabulary and comprehens
oral instructions. Moreover, this program faci
reading and spelling acquisition through the s
grade.

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Is it also the case that phonemic skills are a consequence of learning to read? Ehri (1983) has argued that learning to read aids in the development of awareness of the nature of spoken language. That is, when a child learns to read and spell, a visual representation system for speech (i.e., print) is required. The acquisition of this system, since it is built onto the child's knowledge of spoken language, may lead to modifications in his/her speech competencies. In support of this position, Ehri and Wilce (1979) showed that some children used their knowledge of spelling when they were asked to identify the number of phonemes in words. (Indeed, sometimes this strategy backfired: children claimed that "boat" had four phonemes, because they counted the silent *a*.) Additional evidence comes from a study by Morais et al. (1979), who found that illiterate adults were not able to delete and add phonemes to nonsense words, a task that is extremely simple for literate adults. This confirms the laboratory analog study mentioned earlier: children will not abandon their natural nonanalytic stance unless they are instructed to. If, as these findings suggest, awareness of the phonemes as a linguistic unit is a function of learning to read, would type of instruction make any difference? Alegria, Pignot, and Morais (1982) found that first-graders who had four months of phonics instruction performed better on a phoneme reversal task than did those who had an equivalent amount of whole-word instruction. Moreover, performance on the phonemic task was correlated with the teacher's evaluation of the child's reading level only in the phonics-trained group. (But see Tunmer and Nesdale [1985] for data that indicate that the development of phonemic analysis ability is not greatly affected by method of reading instruction.)

The evidence to date is that phonemic skill is both an antecedent to and a consequent of reading instruction, i.e., that there is a reciprocal relation between phonemic ability and reading instruction (Ehri 1979; Liberman et al. 1980; Perfetti, Beck, and Hughes 1981). Perfetti (in press) makes the further point that the phonemic knowledge that a child must know in order to learn to read (e.g., blending phonemes into words) is rudimentary and does not require "awareness," whereas the type of phonemic knowledge that children acquire as a consequence of learning to read is in fact the kind that involves "awareness," or reflective analytic ability (phoneme deletion: "say *cat* without the *c*"). In turn, gains in awareness lead to further progress in reading.

Phoneme segmentation and blending activities have not yet been incorporated on a wide scale into reading programs. It seems clear, however, that such training is effective and that it should be a part of beginning reading instruction.

Spelling

The second active area of research is on spelling. Spelling was traditionally a common technique in reading instruction (Venezky 1980), but dropped out, for the most part, when the whole-word method came in. Now, however, there is much interest in spelling. Read's (1971) analysis of preschoolers' spellings indicated that even before they learn to read, children often have some phonemic knowledge. Competence in what are called "invented spellings" is correlated with later reading ability (Mann, Tobin, and Wilson 1987) and depends on one's phonemic awareness (Liberman 1985). Essentially, spelling is a phonics task that involves encoding oral language into written language, rather than decoding writing into speech.

Frith (1986) has proposed that, as children develop some knowledge of spelling/sound relationships and move into the alphabetic stage where they first start using letter-sound associations, spelling takes the lead. That is, children start spelling alphabetically while they are still reading according to a logographic strategy that is based on context and purely visual cues. This idea has led people to consider that spelling instruction should be a component of a beginning reading program. In fact, the early programs that followed the Elkonin design incorporated spelling when they placed letters on the tiles that were used in phoneme analysis and blending training (e.g., Williams 1980).

Will encoding (spelling) really help reading? In a recent paper, Uhry and Shepherd (unpublished) reported on giving six months of segmenting and spelling instruction, using blocks and computers, to first and second grade middleclass children who were in whole language classrooms that included some phonics training. Not only did the children more quickly gain proficiency in reading both regular and irregular words than did a control group that received only letter-sound training, but they also were better at reading orally, indicating that a gain in fluency had also resulted from the training.

This type of training makes sense when you consider the difference between practicing sound-to-letter (or letter cluster) correspondences on the one hand, and letter-to-sound correspondences on the other. In spelling, the feature that seems to provide the most difficulty–the phoneme–must only be segmented and recognized. It is the letter that must be recalled and produced. In reading, on the other hand, the phonemes must be recalled in their segmented representation, produced, and blended.

Spelling instruction offers two advantages: (1) practice on analysis of the phonemes that make up the word, and (2) opportunity to acquire the visual or orthographic image of the word that is essential for proficient reading. This latter is not so helpful if the child's spelling is inaccurate, of course. Marie Clay, in her Reading Recovery Program, covers up incorrect spellings immediately, and I think she is correct to do so.

Early Reading

Recently there has been renewed interest in the relevance of the early years of a child's life to his reading ability. What happens in the home? The whole language philosophy rightly puts a great deal of emphasis on the child's developing an appreciation of the functions of reading, that is, that reading is a way of getting meaning and of communicating.

I'd like to mention just one study from the literature on emergent literacy. Much of the work in this area has focused on interactions between mother and child, with a view to understanding how a child informally develops the basic sense of the purpose and functions of reading that will provide an important foundation for school instruction.

Bus and van IJzendoorn (1988), who conducted their study in the Netherlands, observed mothers interacting with their 1-1/2, 3-1/2, and 5-1/2 year-old children in three tasks: watching Sesame Street, reading a picture book, and reading a letter book ("B is for Bear"). The two older age groups were given tests of both functional and linguistic aspects of written language: reading (or simulating reading) a favorite book, constructing words from a set of letters, letter-name knowledge, reading conventions, and a series of questions dealing with the uses of print. Although the authors reported that almost all mothers denied ever giving reading instruction to their children, they actually did, in response to expressions of the child's interest. They named letters, tried to make the child recognize sounds in words, and connected letters to well-known words. Moreover, there was a clear relationship between what happened during the mother-child interactions and the results of the tests. The children of mothers who spent more of their time on discussing and interpreting the stories and the illustrations tended to score lower than did children whose mothers spent more time on specific reading instruction (making comments relating to formal aspects of written language, such as letter-naming, sounds, and word identification). Children who spent more of their time during their interactions with their mothers commenting on and asking about the meaning of the stories and the illustrations scored less well on the emergent literacy tasks than children whose attention was more often focused on letter-naming and other such proto-reading tasks. In addition, the variability in competence among the oldest children was considerably larger than that of the younger groups, suggesting that "competence differences in children grow larger, not only during primary school but during early childhood as well" (p. 1271).

Moreover, there did not seem to be any difference in outcome between the tests that focused on what might be termed pre-phonics skills (knowledge of letter names and of conventions, and the ability to construct words out o letters) and those that were more related to rudimentar comprehension (the ability to read or simulate reading story and an understanding of the function of writte language).

Whether you consider early literacy acquired during th preschool years on the basis of mother-child interactio as a "natural" developmental process or as an informa teaching-learning process, it is clear that the type o activity addressed in those interactions makes difference. Again, as in work with older children attention to specific reading skills, which might b characterized as phonics-oriented skills, makes for bette performance.

Overall, when you start to review the data seriously, yo can't seem to get away from the fact that there something about phonics and decoding that is very, ver important. What is so very important is that phonics is th principal language skill that children, when they ent school, do not have and that they need to have in order read. You cannot get away from a consideration decoding as a central focus of beginning readi instruction.

A Good Reading Program

How do you implement a reading program that pu decoding and phonics into appropriate focus? In ma respects, you don't do anything different from wh people usually do when they plan and implement go instruction. You need, first and foremost, compete teachers who know what they are doing and who committed to their job. You need a classroom atmosph in which children are treated positively, wi respect–where all children are treated this way. Th should also be a respect for literacy. A good teacher re to children to give them motivation to read on their ov he or she provides a model for the purpose of reading the joy of reading. You need interesting and challeng texts, texts to improve skills and texts to enjoy and le from–books, newspapers, poetry.

You hope for good preparation in the preschool year literate environment, and parents as models; if it is there, you try to furnish it. You offer integrated read and writing instruction, to help develop proficiency also to help children express themselves creativ

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through their own writing. You focus on meaning and on communication as the ultimate goal.

What you also do is not forget that there is an instructional core: that English is an alphabetic language, and that phonics knowledge and the skills that come from decoding and encoding practice will make children better readers sooner.

Obviously, not all phonics-oriented reading programs are well planned and well implemented. If the program offers no justification to the child concerning its purpose or ultimate utility; if the program starts with sound/letter correspondences without adequate attention to phonological skills; if there is only decoding and no encoding instruction; if it is all drill and no fun, that is, no games, no interesting reading materials, no opportunity for a sense of achievement; if little attention is given to reading real text, so that there is only limited practice in actually using the skills for the purpose for which they are ultimately intended; if the instructional sequence is unsystematic; if the instruction continues for too short a period of time; or if the teacher is unprepared or unwilling, or if he or she puts his or her own needs ahead of the needs of the children (e.g., it is very satisfying to read an exciting story to the kids–they think you're wonderful; so you read a lot of stories)–then the program will not be very effective.

What do you do if you're stuck with a reading program that gives short shrift to phonics? Trade it in, if you can. Otherwise, make some modification. Isabel Beck and Connie Juel (in press) have recently written a paper with some excellent suggestions in this regard, including the recommendation to revise texts to include words that will provide practice on what has been taught in the phonics lessons. They do not propose, I should add, modifying honest-to-goodness stories and poems and other literary works. And they also recommend that a teacher who is faced with a surfeit of phonics materials–of the "Pat is a fat cat. Pat sat on the mat" type–should adapt those texts, too, by introducing high frequency words that have utility for future reading and words that are of special interest to the children and that have appeared in their own writings. The point is that phonics knowledge and decoding skill are the heart of reading, and that good phonics instruction is well integrated with the rest of reading instruction, which, most importantly, includes the provision of sufficient and appropriate text for students to read.

Take advantage of kids' own interests. They love music, and they sit and concentrate, pencil in hand, in order to figure out song lyrics... just like the French dictée. (Only girls admit to doing this; boys don't think it's cool.) Tippy Gore might not like some of this activity, but it's probably improving their reading!

Conclusion

Today, without strong direct systematic decoding instruction in regular first grade classrooms, more and more children are being shunted into remedial classes, and even into special education. There, they are more likely to get the systematic instruction they need. We are gradually getting to the point where it won't even be expected that the regular first grade classroom is where a child learns to read–it will be the place where kids discuss stories and write compositions. To learn to read, children will go to resource room teachers, who are specially trained to teach beginning reading. (Translation: they appreciate the value of phonics and know how to go about teaching it.) Of course, such extra services are costly and are not always provided.

At one end of the income scale, parents of children who are floundering will hire tutors. In fact, this is already becoming a big business, and it is becoming accepted that one's child–a perfectly ordinary child–may need special tutoring. In New York City and its suburbs, such tutoring costs up to $60 an hour, and a more and more common aspiration on the part of our graduate students is to have a private practice. Is it "professionalism" to have teachers specialized in this way, so that what was in the past considered an expectation of performance in the regular classroom can now be met only with outside special assistance?

At the other end of the income scale are families that cannot afford this expensive tutoring. They may be out of luck. Their children may not learn to read.

Many children are now not learning how to read. And many other children are learning so little, so slowly, that they will never be good readers. Consider what it means for a child not to have mastered phonics: he or she is stuck with a very small reading vocabulary, and one that has no way to grow with further reading practice, as oral vocabulary increases. He or she must be content with guessing at words, which good readers do not do.

The child who has not mastered phonics also makes very slow progress in achieving the stage of reading fluency and automaticity. If one reads slowly and haltingly, one cannot process the incoming information effectively with respect to its meaning, so comprehension is impaired, and certainly one's motivation to read declines.

Reading, beyond the elementary school level, provides the most opportune occasions for a person to acquire vocabulary, grammar, concepts, and general knowledge – crucial in their own right, and essential as a basis for further improvement in reading. We know how to give students a good start and a proper foundation, and we should do it.

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